



steady**PRINT**®

The Software for centralized printer administration,
monitoring and reliability.

User Manual for Version 4.3

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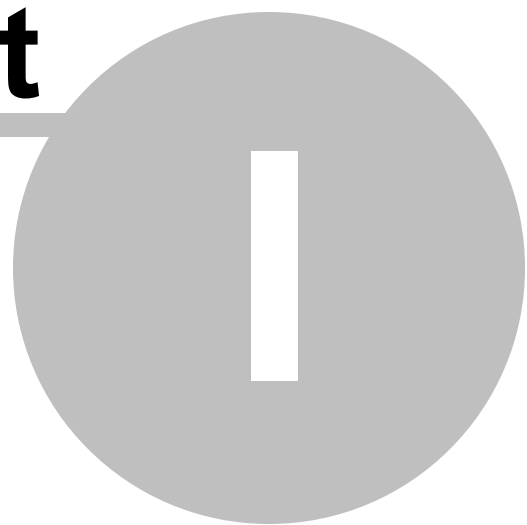
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Part



1 Welcome

The **steadyPRINT** team wishes you a warm welcome. With **steadyPRINT**, data loss due to printer failure now belongs to the past. In the event of a print server failure, print jobs are redirected to a backup print server by means of a centralized printer management system. This allows administrators to direct their attention to the defective system without ruffle or excitement as users are able to continue printing despite the failure. Not a single print job will be lost. Particularly when it comes to complex printing environments, **steadyPRINT** is the ideal solution while also making an expensive cluster system superfluous. In addition, further-reaching possibilities are put at your disposal when it comes to overseeing your printers - as in job monitoring, for example.

This user manual introduces you to the basic installation process with its individual components as well as to **steadyPRINT**'s mode of operation. It highlights the fundamental technology employed by **steadyPRINT** together with its various functions. The following section provides some tips and suggestions for the establishment and possible consolidation of your printer environment.

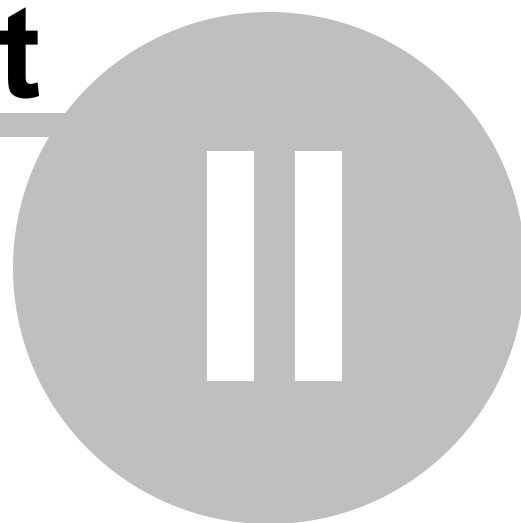
Information

Please read the accompanying [readme.txt](#) file before beginning with a possible installation. It will provide additional topical information and references concerning - in particular - the current version of steadyPRINT.

Additional information is also available in the Internet at www.steadyPRINT.com:

- Registration option, to receive a regular newsletter, for example,
- free downloads for test versions and individual components of steadyPRINT,
- current patches and hot-fixes with a listing of changes,
- announcements and roadmaps for the steadyPRINT product line,
- technical problem solutions,
- frequently asked questions (FAQ).

Part



2 steadyPRINT in Overview

steadyPRINT is a software that simplifies the administration of printing environments and enhances certain core functions. The benefit of using **steadyPRINT** increases with the complexity of the printing environment in which it is deployed. Particularly in the terminal server domain, special challenges may arise an administrator has to deal with.

2.1 steadyPRINT's Objective

steadyPRINT helps you to meet these challenges. The software enables comprehensive and central printer management. You can directly access local user and Citrix (or Microsoft-based) terminal server sessions. The aspect of session location remains transparent when it comes to the administration of the printing environment.

With **steadyPRINT**'s integrated reliability, the risk of a central failure point is reduced. In the event that a print server is no longer available, the users' printer connections are shifted to a backup server. In this way, printer availability continues to be maintained for the users. The administrators can now calmly **concentrate on the problem** at hand without encountering bottlenecks and unnecessarily stressful situations.

To implement the points mentioned in a computerized environment, **steadyPRINT** has various components at its command. More details will be given in the following subchapters [Overview](#) and [The Technology](#).

2.2 Overview

steadyPRINT is composed of several software components that are distributed in the environment. [Figure 1](#) illustrates a simplified overview of software distribution in a network.

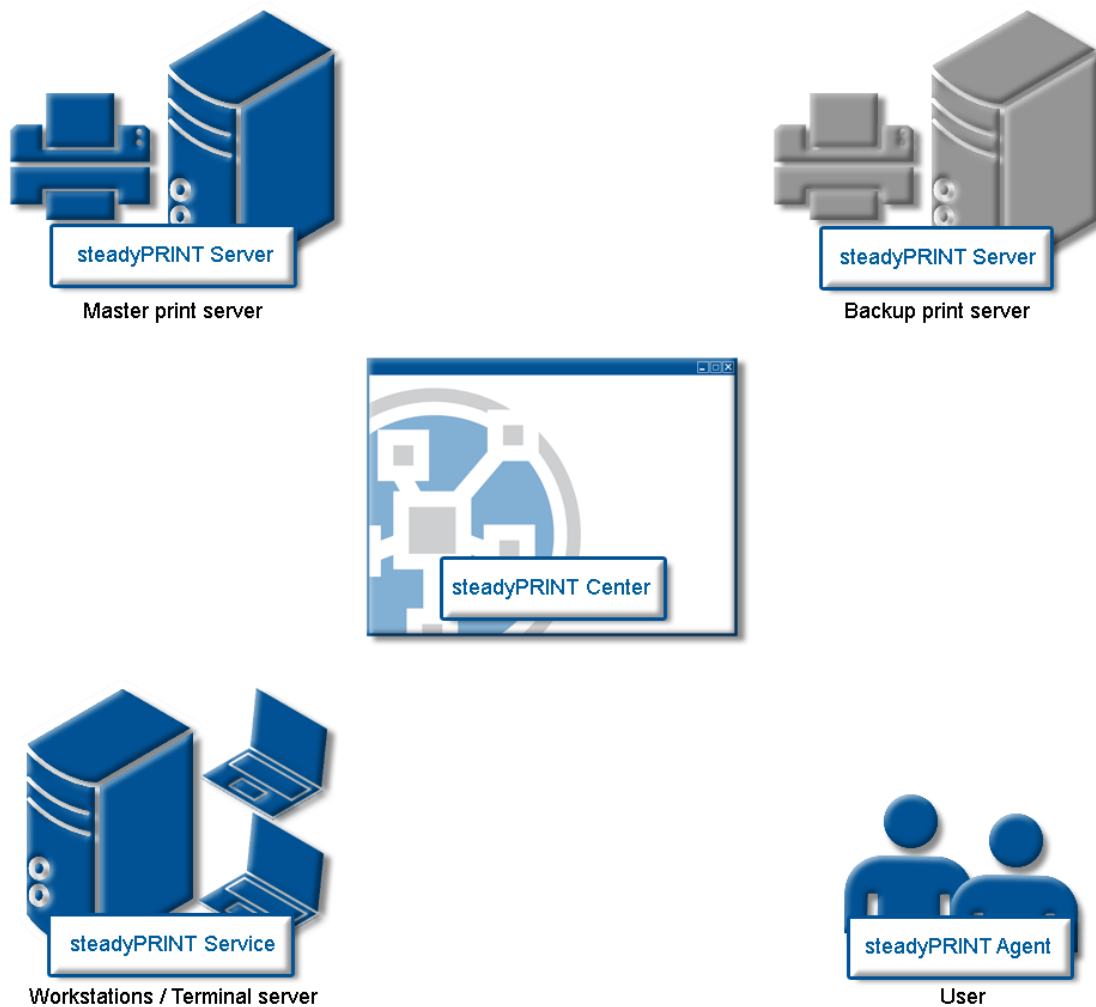


Figure 1: Overview of the steadyPRINT Components

The master print server holds the printer shares. An additional print server monitors the master print server and, in case of a failure, takes over this printer sharing responsibility. The servers and workstations with their user sessions must ultimately administer **steadyPRINT**'s printing environments. The administration takes place using network tools which communicate with the other components and services.

2.3 The Technology

Among other things, **steadyPRINT** comprises two service components that run as Windows services on the servers and workstations. The following table provides an overview:

Process/Service	Installation Location	Description
steadyPRINT Agent	Terminal Servers and Workstations	Serves as printer administration on terminal servers and workstations. The steadyPRINT Agent sets up the printer connection according to the configuration as predefined by the administrator and/or user.
steadyPRINT Center	Print Servers	Serves as the central administration point of your printing environment. Ideally, this is installed on every print server.
steadyPRINT Server	Master and Backup Print Server	Serves as the central administration point of your printing environment. Ideally, this is installed on every print server.
steadyPRINT Service	Terminal Servers and Workstations	Service for the remote administration of the printing environment.

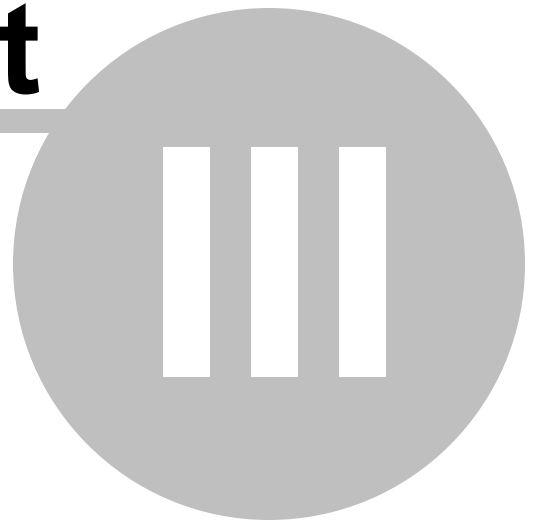
Table 1: Overview of steadyPRINT Components

Additionally, a background process runs during every user session, which establishes a communication channel to the **steadyPRINT Service**. A database on Microsoft SQL Server basis serves as data storage. Using the free SQL Server Express version is also possible.

2.4 Features

steadyPRINT offers several necessary features for the management of a printing environment. Moreover, the functionality of the Windows print servers is extended by many useful operations. You will find an overview of the most important features in the most recent version of **steadyPRINT** under <http://www.steadyprint.com/download/> in the area **Documentation > Key Features**.

Part



3 Installation

To install **steadyPRINT** you will need the installation package. It is available for download in the download area at www.steadyPRINT.com. Please note that it is absolutely necessary to back up your data before beginning with the installation. Details will follow in Chapter [Installing the Database](#).

System Requirements

The following requirements must be met in order to run **steadyPRINT** on client and server side:

- At least one print server running Microsoft Windows Server 2003, 2008 or 2008R2 (32 or 64 bit),
- Active Directory as of Microsoft Windows Server 2003,
- Microsoft SQL data base as of version 2005 (the Express version is possible),
- Client operating system as of Microsoft Windows XP Prof. (32 and 64 bit) as well as .NET Framework 3.5 at least.

Important: Upgrade Guide

Please consult the Upgrade Guide in chapter [Upgrading to a higher version](#).

Backup the steadyPRINT Database before you upgrade in case it might need to be restored due to an error!

3.1 Installing the Database

A running data storage system is absolutely indispensable when applying **steadyPRINT**. The set-up is done with the help of the **CreateSteadyDB** application provided. Start up this application with a double click. The following [Figure 2](#) shows the application after start up with filled-in database and credential information.

The screenshot shows the 'steadyPRINT - CreateSteadyDB' application window. It contains the following elements:

- Database connection section:**
 - DB server: BPS\SQLXP (with a Search button)
 - User: sa
 - Password: masked with dots
- Database user for steadyPRINT section:**
 - User: pm
 - Password: masked with dots
- Type of installation section:**
 - ☒ New installation
 - ☐ Upgrade
- Bottom section:**
 - Version 4.3.2 (dropdown menu)
 - Install button
 - Uninstall button
 - Cancel button
 - Version 4.3 (text label)

Figure 2: Installing the Database with CreateSteadyDB

Data Connection

Enter the name of the database server or the database instance on which the database is to be set up.

An [SQL-Login](#) with the corresponding [System Administrator](#) (sa) authorization on the SQL Server is also necessary in order to be able to access the database server or database instance and set up a database. Enter the user name and password in the fields provided. During this process pay attention to the particularities of setting up a database on a Microsoft SQL Server Data Engine (**MSDE**) as described in the annex of this user manual.

Important	Setting up a steadyPRINT Database as system administrator (sa)
	<p>Enter the user credential data of an SQL Server Administrator (sa) in order to successfully conclude full implementation of the process.</p> <p>Here, the CreateSteadyDB application expects the user credential data of an SQL Server Administrator or an equivalent account with "sysadmin" server role status.</p> <p>You can find further details concerning this (technical background) at the steadyPRINT website www.steadyPRINT.com under FAQ/Technical Support.</p>

Database Users for steadyPRINT

At this juncture, the entry of a separate database user for the [steadyPRINT Database](#) will be made ([PrinterMap](#)). The entered user is **automatically** created and later necessary for [Installing the Program Components](#).

Installation Type

In the penultimate step, the type of installation is selected. Here, you have two options to choose from, to be more precise, either a new installation of [steadyPRINT](#) or an upgrade of the [steadyPRINT Database](#) currently in operation. The latter carries out a conversion of the database to a newer version that is equivalent to the [steadyPRINT Components](#) currently in use.

Provided that a database has not yet been set up for [steadyPRINT](#) on the database server or database instance, or if you would like to discard an existing [steadyPRINT Database](#), select the [New Installation](#) option.

Should a database from an earlier version of [steadyPRINT](#) already exist on the database server or database instance, it is possible to update it to the current version. To do so, select [Upgrade](#).

Important	Upgrade Guide
	Please read the Upgrade Guide in Chapter Upgrade to a Higher Version .

Selecting the Version

Select here the version of **steadyPRINT** you would like to install. In case **no** current indication of the version number is visible in the CreateSteadyDB Tool, select the highest version number that is available for selection.

Starting the Database Installation

After the necessary entries have been made, you can initiate the creation of the database with a click to the **Install** button.

3.2 Installing the Program Components

In this chapter we are going to address the various installation procedures for **steadyPRINT Components** – both on client and on server side. The following components are available to choose from:

- *Client*
- *Management*
- *Server*

All three installation types will be shown and described using step-by-step instructions in the following subchapters.

Important	<i>Installing server roles for print servers</i>
	Installing steadyPRINT Server components makes it necessary to have the "Print Server" role installed on a Windows server (the designation can vary depending on the Windows server versions being used).
Note	<i>Program components</i>
	The installation of the program components for workstations, clients and the servers, as well as for management components, takes place by starting the installation using the accompanying MSI package steadyPRINT.msi .
Tip	<i>Installation location for the management components</i>
	The steadyPRINT team recommends that the management components be installed on the corresponding print server.

3.2.1 Combined Installation Steps

After starting the installation routine, you will see the **welcome screen** with the words "Welcome to the InstallShield Wizard for steadyPRINT," [Figure 3](#).

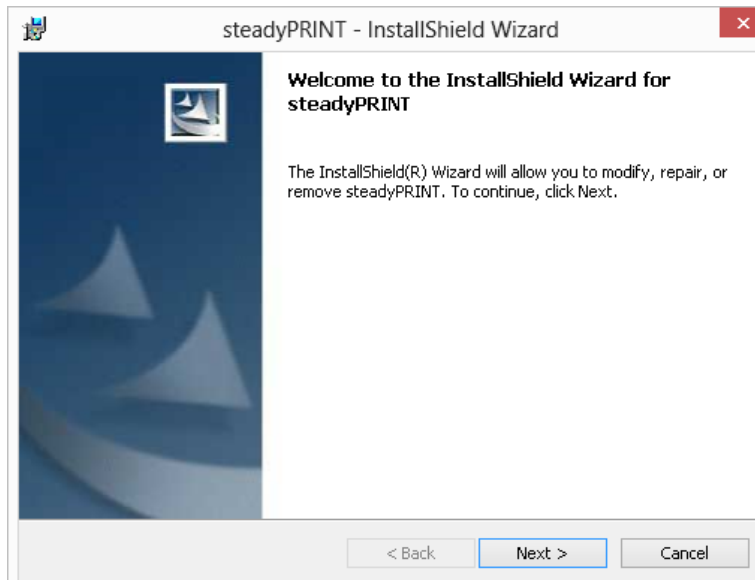


Figure 3: Installation - The Welcome Screen

By clicking on the [Continue](#) button, you will progress to the next dialog box. This displays the license agreement, [Figure 4](#).

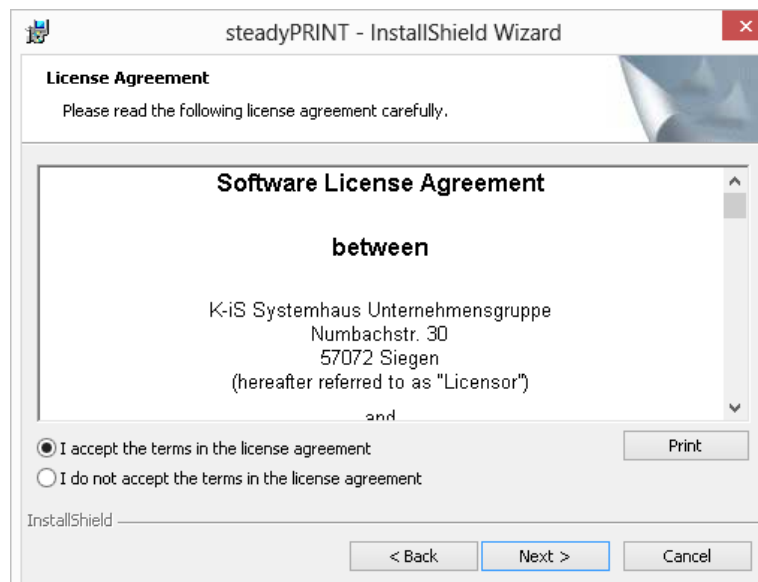


Figure 4: Installation - The License Agreement

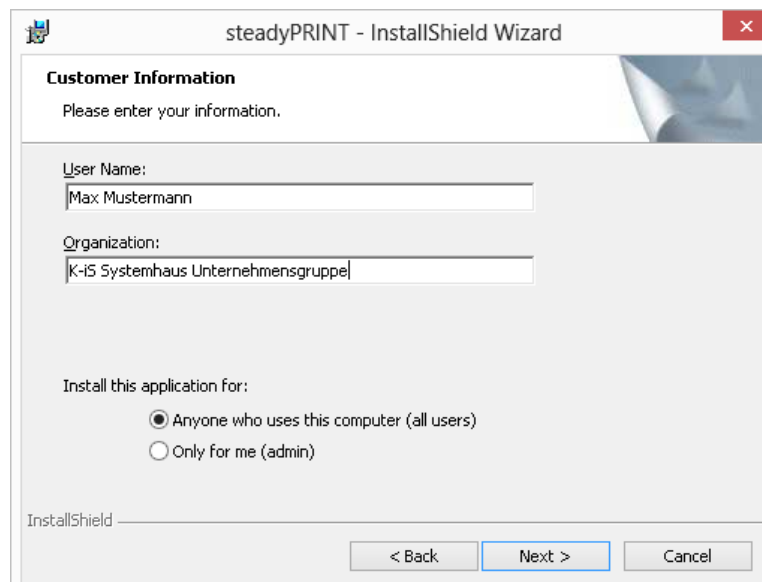
You will now be asked to confirm the license agreement. You are advised to read the [steadyPRINT software license agreement](#) conscientiously. Accepting the license agreement is necessary to continue with the installation. To do this, select "*I accept the conditions of the license agreement*" and confirm your selection by clicking on the [Continue](#) button, thus bringing you to the user information

particulars.

By declining to accept the license agreement, the installation routine ends.

Important *Accepting the license agreement*

In order to install the steadyPRINT program components you must agree to the software license contract. **The installation cannot continue should you decide not to accept the license agreement.**



The screenshot shows a Windows-style dialog box titled "steadyPRINT - InstallShield Wizard". The "Customer Information" section is active, with the instruction "Please enter your information." Below this, there are two text input fields: "User Name:" containing "Max Mustermann" and "Organization:" containing "K-iS Systemhaus Unternehmensgruppe". Underneath, the "Install this application for:" section has two radio button options: "Anyone who uses this computer (all users)" (which is selected) and "Only for me (admin)". At the bottom left, the "InstallShield" logo is visible. At the bottom right, there are three buttons: "< Back", "Next >" (highlighted with a blue border), and "Cancel".

Figure 5: Installation - User Information

In the two input fields [User Name](#) and [Organization](#), please enter your full name and the organization for which you are working ([Figure 5](#)). To confirm your entries, click on the [Continue](#) button.

The following dialog box, [Figure 6](#), requires that an installation directory for the **steadyPRINT Components** on your local hard drive be specified.

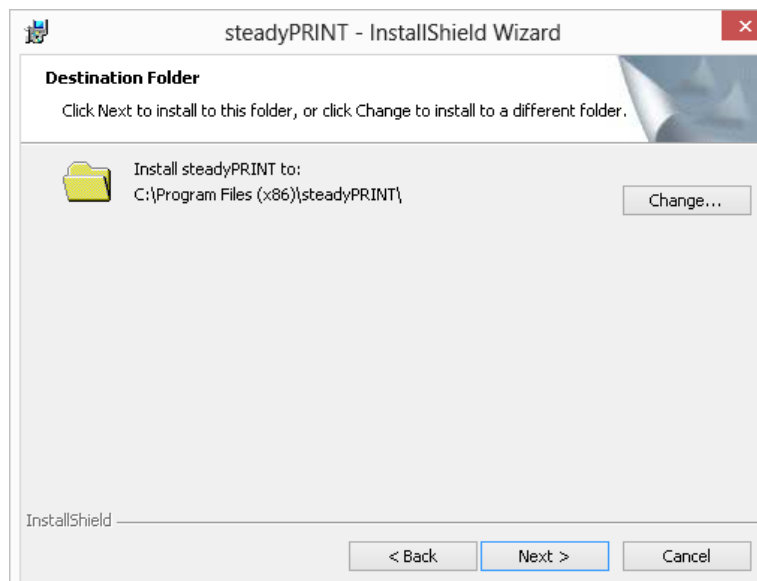


Figure 6: Installation - Destination Folder

If you wish to use an installation folder other than the default destination folder location suggested, it is possible for you to do this using the [Edit](#) button.

Then click on the [Continue](#) button to configure the components for installation.

3.2.2 Component Selection for Installation

The following is a user-defined installation interface offering you the [steadyPRINT Components](#) to be installed. Here you can select the feature desired and disable the other components. Deselecting a corresponding feature is done by double-clicking it and then selecting "*This feature will not be available.*" To enable a feature, it is necessary to click on the menu item "*This feature will be installed on a local hard drive.*" [Figure 7](#) shows, as an example, the selection of the [steadyPRINT Server](#) component.

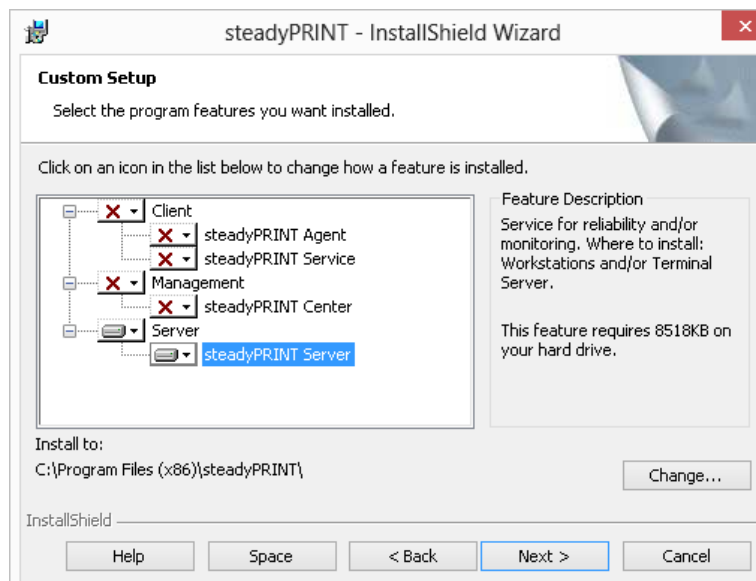


Figure 7: Installation – Adapted Setup

To conclude the adapted - or custom - setup for **steadyPRINT Component** selection, click on [Continue](#). The next step of the installation requires that the name of the database server or database instance be entered.

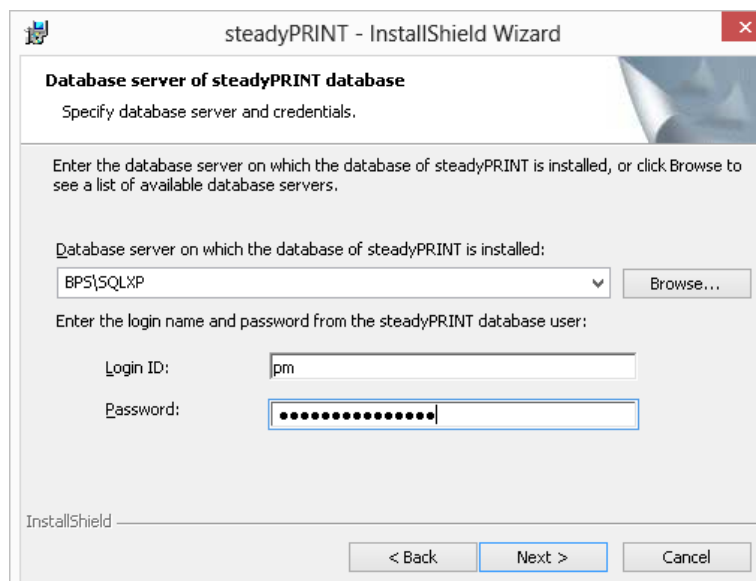


Figure 8: Installation – Database Server

Enter the information for the **steadyPRINT Database** server and separate database user from [Installing the Database \(Figure 8\)](#), which was added previously while creating the database with the [CreateSteadyDB](#) application. Then click on [Continue](#) to proceed.

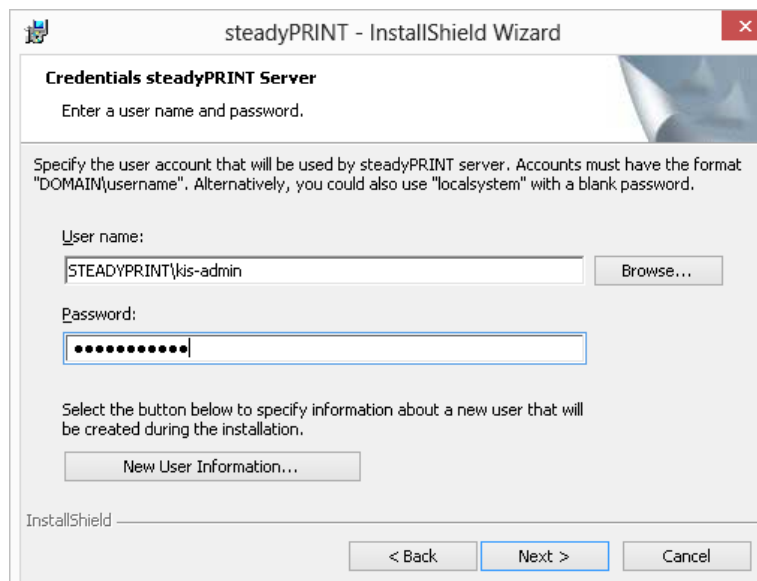


Figure 9: Installation - Credentials

The next installation step, [Figure 9](#), requires the entry of the *domain authentication data (credentials)* of an administrator account. For this, the name and the password of a user who has the corresponding administrative authorization to query the status of the print jobs in the queue of the monitored print server will be necessary. Then finalize the installation by clicking on the [Continue](#) button.

Important	<i>The installation of the „system account“ server components fails</i>
	<p>To install the steadyPRINT Server components you will need to have adequate administrative authorization (Catchword: System account authorization).</p> <p>Alternatively, enter user name localsystem and leave password space empty to continue this installation step.</p> <p><i>You will find further information (technical background) about this in chapter Support under FAQ/Technical Support.</i></p>

During the installation of [steadyPRINT Agent](#) components for workstations and terminal servers as well as for management components, the name of the database servers or database instance will also be asked for once selected. Entering the *domain authentication data* will not be necessary, however.

3.2.3 Completing the Installation

The necessary entries for the installation of the [steadyPRINT](#) program components have been made by you. The InstallShield Wizard's program assistant is now ready to copy the program files to your local hard drive and to make the necessary system entries, [Figure 10](#).

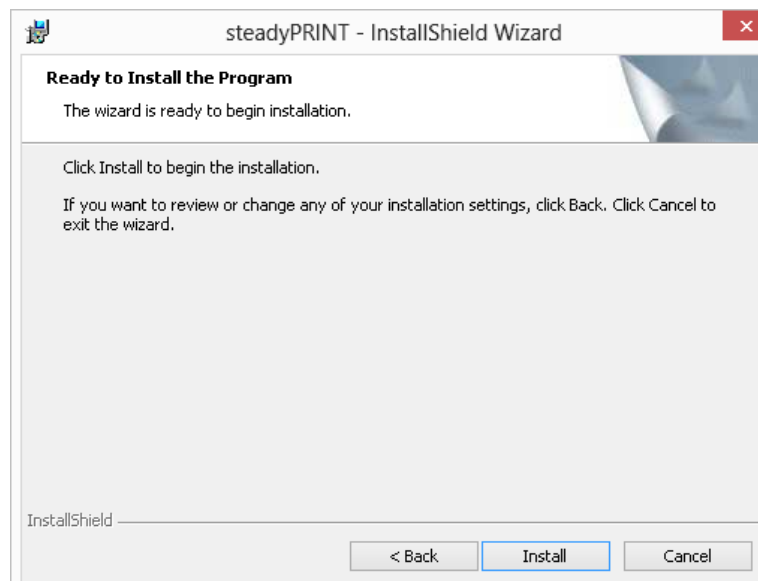


Figure 10: Installation - Ready to Install the Program

Click on [Install](#) to execute the installation with the specifications you have made.

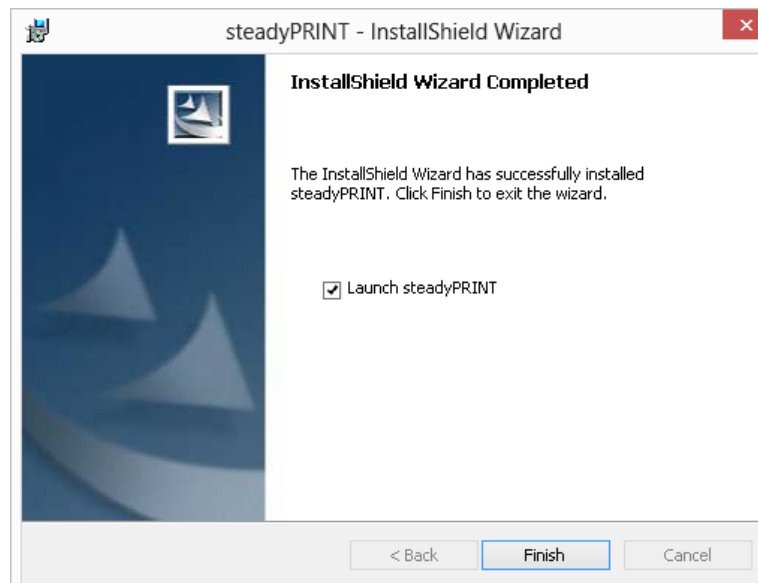


Figure 11: Installation - InstallShield Wizard Completed

The [steadyPRINT](#) program components have now been fully installed. Click on [Finish](#) to complete the installation ([Figure 11](#)).

Part

IV

4 steadyPRINT Center

The **steadyPRINT Center** is available to help you administer the printer environment in **steadyPRINT**. All functions necessary for the central administration of your printers have been brought together here.

The following will explain the individual program steps to be taken for the initial setup of a new print server using the administrative tools in **steadyPRINT**.

Note	License necessary
	When starting steadyPRINT Center, the license will be verified. At least one Test or Express License is necessary in order to work with steadyPRINT. For more information concerning licensing, see section License .

4.1 Print Server Administration

To administer print servers and printers with **steadyPRINT**, it is necessary to first integrate them in the **steadyPRINT Center**. This is done using the context menu at the administrative tool's tree view, [Figure 12](#).

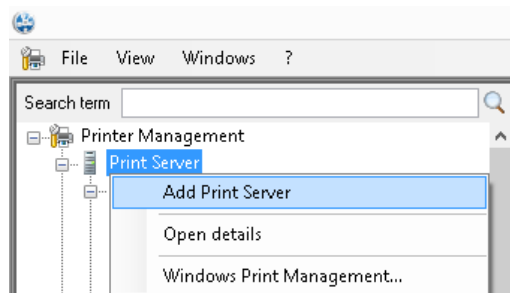


Figure 12: steadyPRINT Center – Setting up a New Print Server with the Context Menu

Importing Print Servers and Printers

Now the name of a print server is entered in the window seen in [Figure 13](#) allowing its connected printers to be listed. Disabled print servers can be re-enabled here by entering the name (also see [Disabling and Deleting Print Servers](#)).

Note	Importing a disabled print server from the database
	Please note when importing that all existing printer assignments remain set to <i>disabled</i> ("locked") by default in order to avoid accidentally making printer connections to the clients. Otherwise, these assignments would have a direct impact.

To administer your printers with **steadyPRINT**, select them and then continue by clicking on the **Import** button.

Tip **Organizing printers in folders**

Organize your printer environment in a clearly arranged folder structure. This can be done either by following or directly during printer import.

After completing this action, the new print server with the selected printers appears in the tree view under [Printer Administration > Print Server](#).

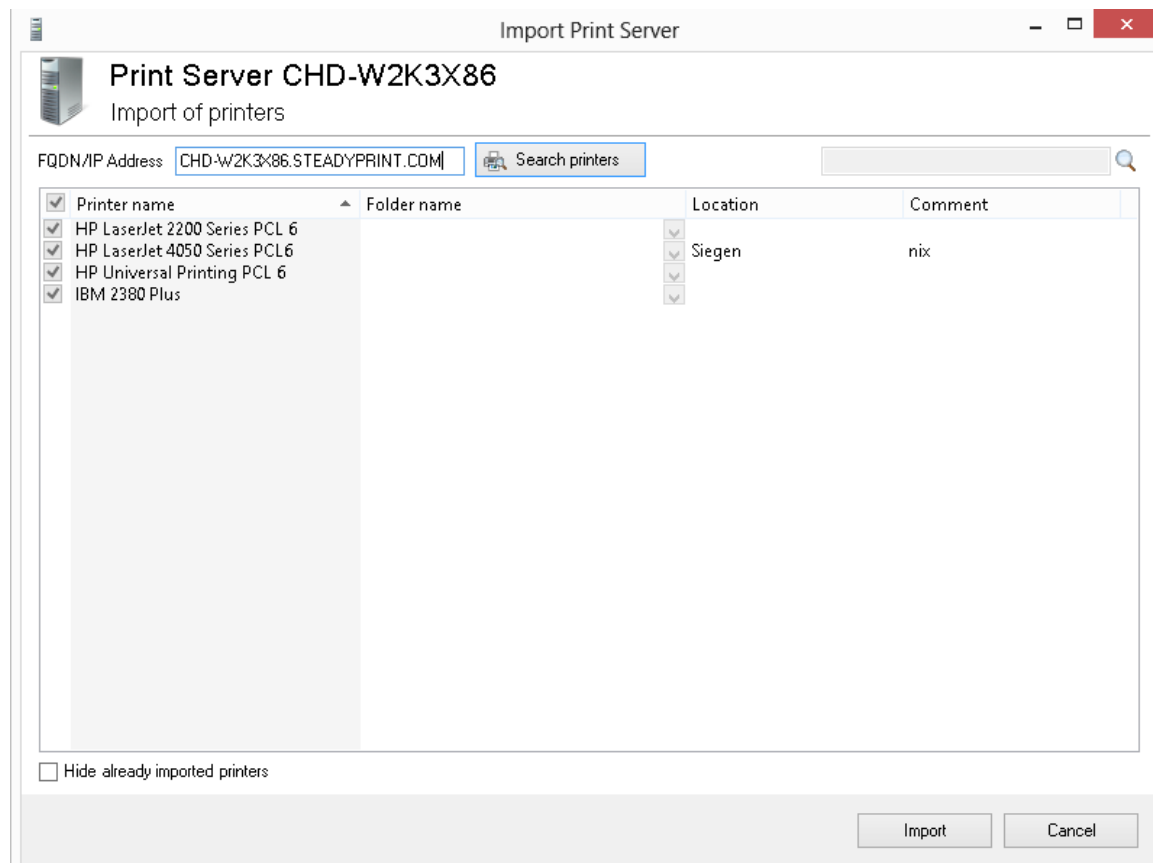


Figure 13: steadyPRINT Center – Importing a Print Server

Disabling and Deleting Print Servers

Removing a previously imported print server is possible using the context menu of the corresponding print server. By adding the check mark in [Figure 14](#), you will erase the selected system - with all its printers and their assignments - irrevocably from the database.

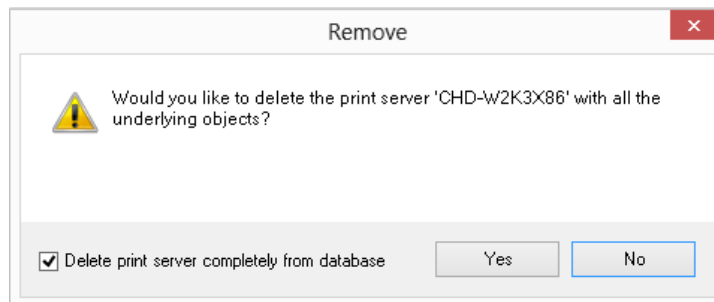


Figure 14: steadyPRINT Center – Deleting a Print Server

Otherwise the print server will merely be disabled - whereby it will subsequently no longer be visible in the [steadyPRINT Center](#). Analogous to [Importing Print Servers and Printers](#), you can re-import a disabled print server for subsequent use by entering the name.

Note: *Disabling a print server*

Please note that only one disabled print server with the same name is allowed in the database. After disabling an additional print server, however, you can overwrite the existing one.

4.2 Assigning Printers

Printer connections are generated in [steadyPRINT](#) through the assignment of Active Directory objects (Users, Computers and Groups) from [steadyPRINT Center's User and Computer-Administration](#). All objects stem from Windows' *Active Directory*, which is depicted in an analogous structure. If assignment changes take place, these immediately take effect on the workstations and clients on which the [steadyPRINT Agent](#) has been installed. They are notified on a continual basis of any changes made. In this way, for instance, changing the default printer for a specific user leads to the communication of this fact to the user and also to an updated configuration.

To assign objects to a printer, first select the printer from the tree view, open the context menu and then select [Assign Printer](#). [Figure 15](#) shows the [User and Computer Administration](#) view in which users, computers and groups from your Active Directory are available for printer assignment. To create a printer connection, you can add an object to be administered – the [Webinar](#) group on the upper right side, for instance - with the [Add](#) button to the assignment list. Once this action is completed, the log in item will be found in the selected printer's listing.

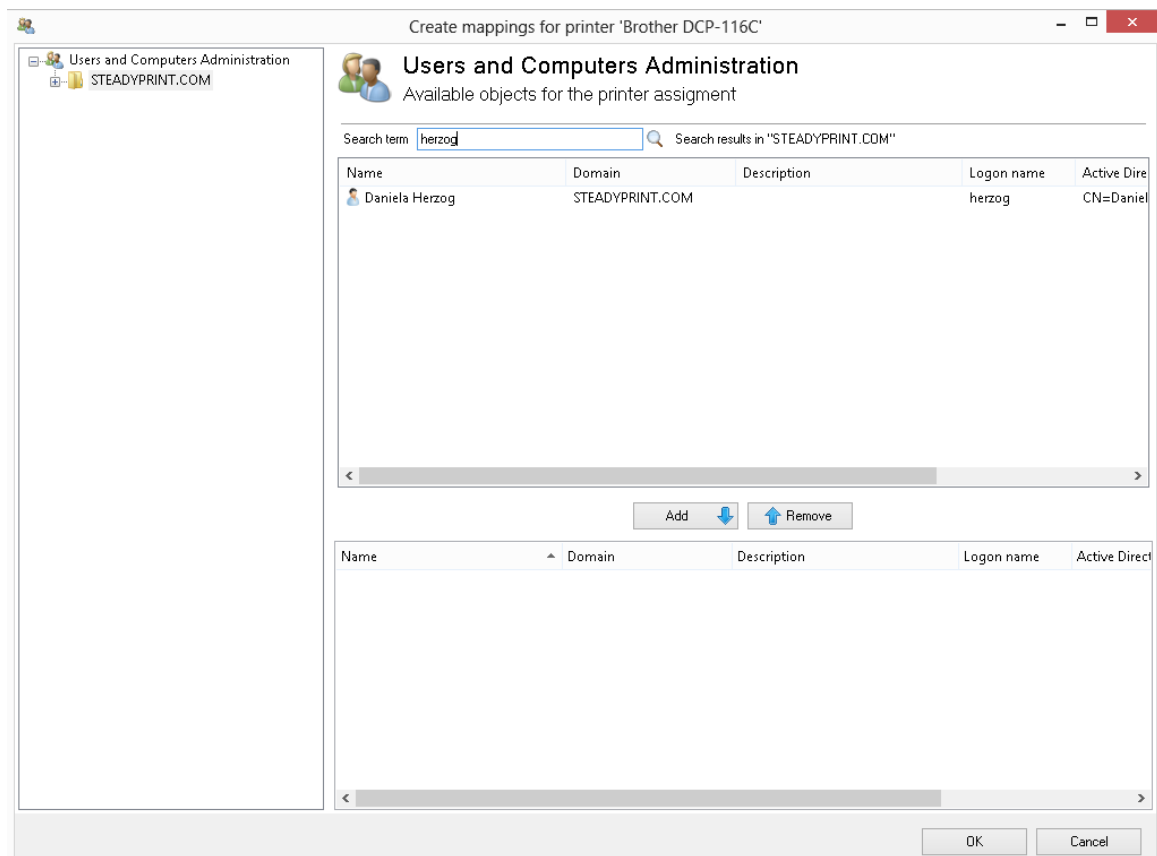


Figure 15: steadyPRINT Center - User and Computer Administration

Note *Users and computers are not displayed by default*

In order to optimize the loading time, users and computers are not displayed in Users and Computers Administration by default. By using the two check marks available, you can elect to display them or not.

Sharing and Blocking Printers

Printers administered with **steadyPRINT** can be shared and blocked in a precise, fine-tuned way by means of the Active Directory objects at your disposal (see [Figure 16 – the first check mark](#)). By default, all assignments are enabled. It is possible to configure the share either by using the printer display or with the context menu of the respective object.

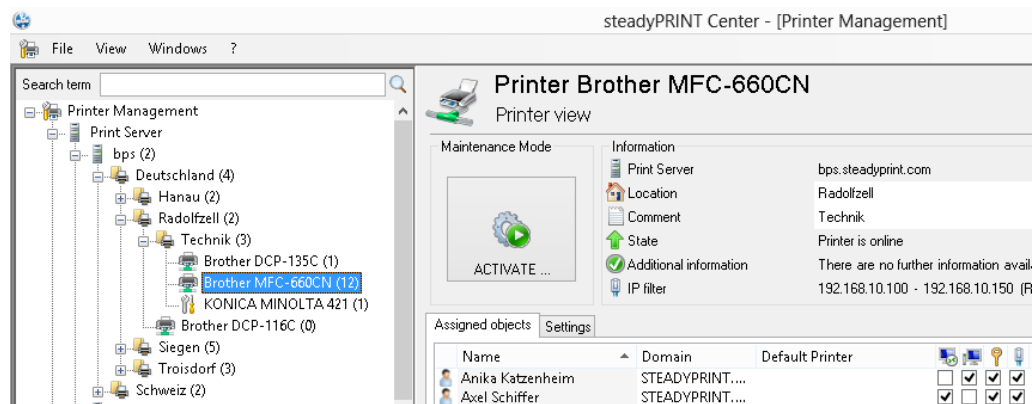


Figure 16: steadyPRINT Center – Connection Settings for Printer

Blocking a printer with **steadyPRINT** means that it is no longer connected to the user, the computer or the group. Furthermore, it is not possible for the user to add it with the **steadyPRINT Agent**.

In addition, you have the possibility to share blocked printers with individual users, computers or groups. In this context, it is necessary to pay attention to the priority of the respective assignments:

- User = Priority 1 (high),
- Computer = Priority 2 and
- Group = Priority 3 (low).

Tip Sorting assignments by priority

Use the first column of [Figure 16](#) - Connection Settings for Printer in order to sort the assignment by its priority.

The following scenarios describe the behavior in various constellations with the user **Dennis Richter** being in the group **Domänen-Benutzer** and working on computer **PC001**.

Scenario 1

[Figure 16a](#) shows the assignments of the printer **TOSHIBA e-STUDIO853** for the user **Dennis Richter**, the computer **PC001** and the group **Domänen-Benutzer**.

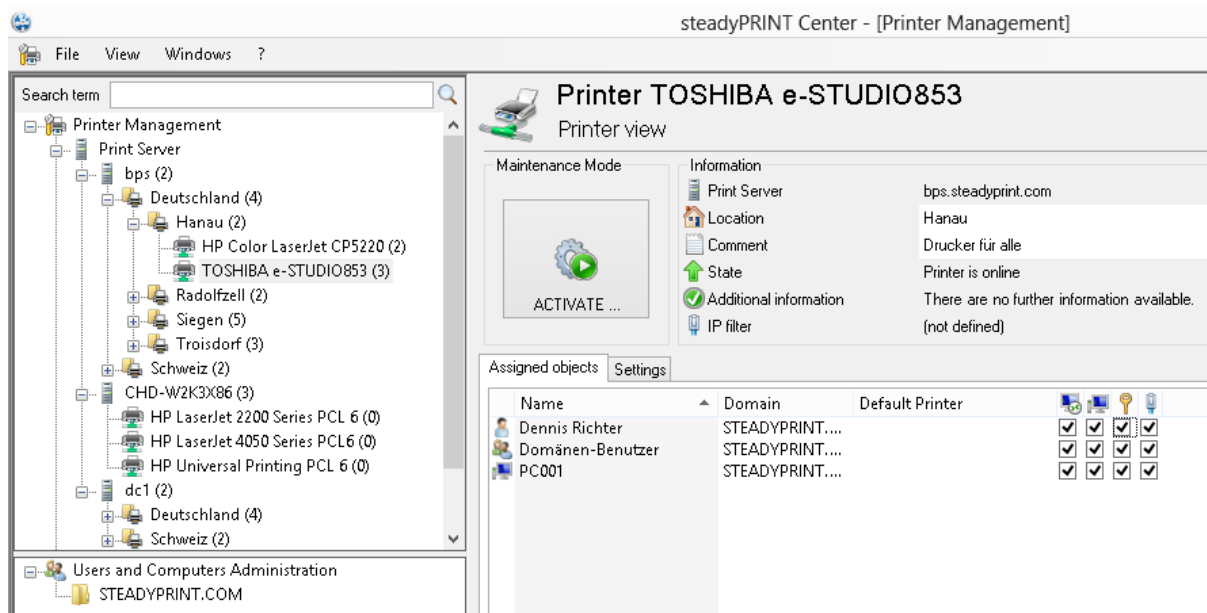


Figure 16a: steadyPRINT Center - Scenario 1 for Assignment

Scenario 2

Figure 16b shows the assignment of the printer TOSHIBA e-STUDIO853 for the user Dennis Richter and the computer PC001. This printer is not available to the other users of the group Domänen-Benutzer.

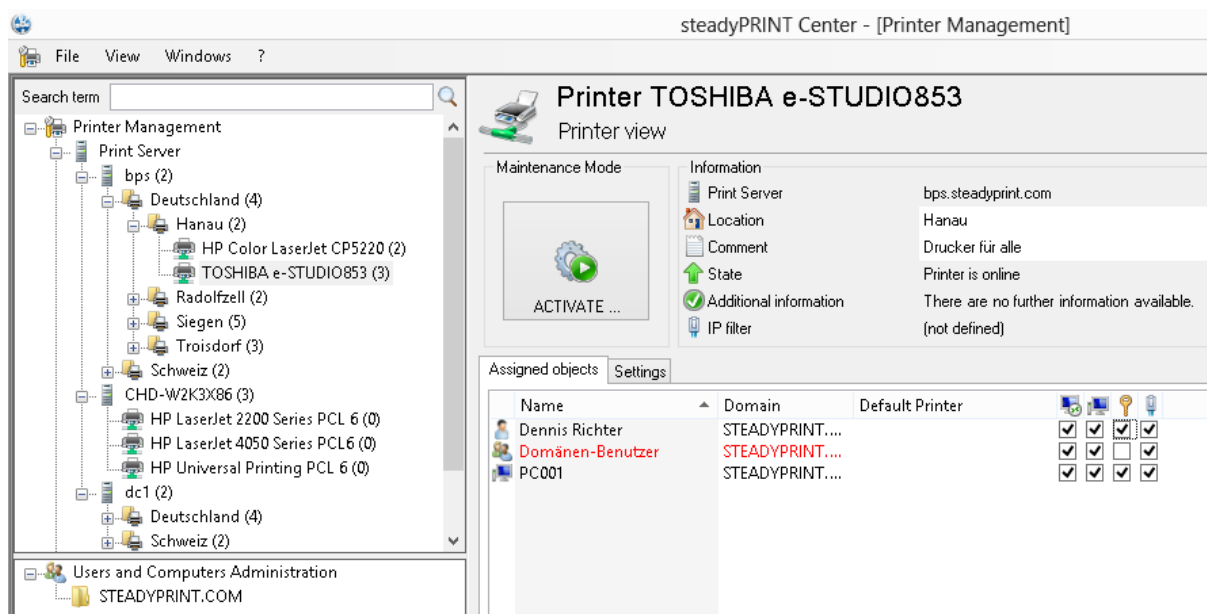


Figure 16b: steadyPRINT Center - Scenario 2 for Assignment

Scenario 3

Figure 16c shows the assignment of the printer TOSHIBA e-STUDIO853 for the group Domänen-Benutzer. The user Dennis Richter as well as all other users working on computer PC001, have not access to the printer.

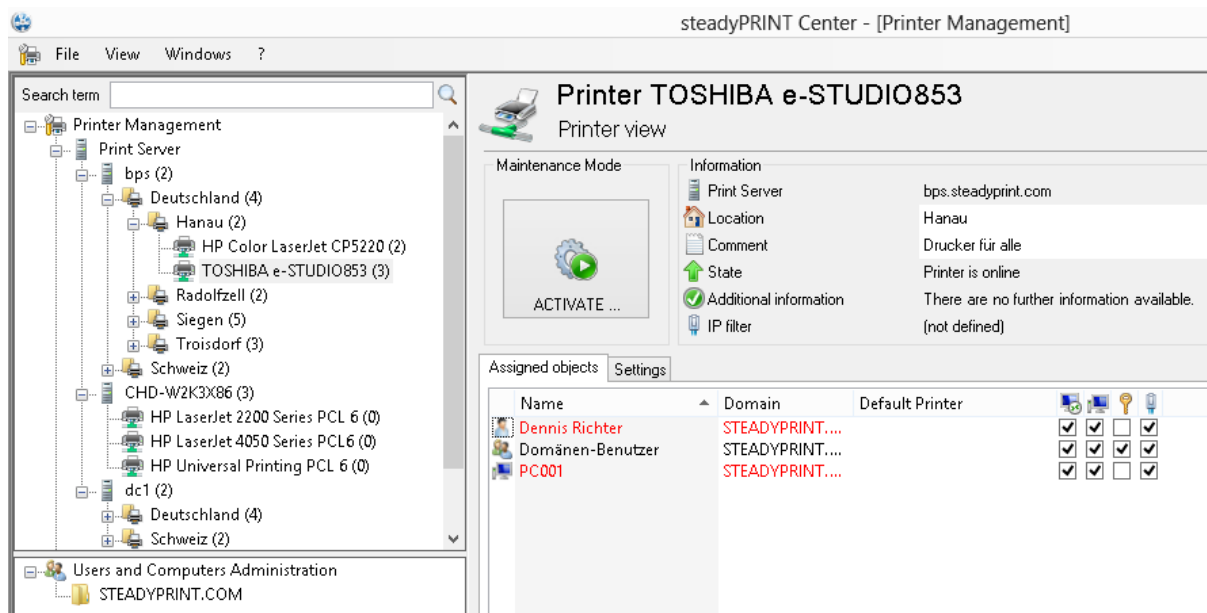


Figure 16c: steadyPRINT Center - Scenario 3 for Assignment

Tip *Deleting manually created printer connections*

Using [Settings](#) under [Agent Profile](#), you can select whether or not the printer connections not being administered by the steadyPRINT Agent are to be deleted at startup. With this, it is possible to automatically remove printers that were added manually by the user with the Windows printer directory.

Connecting to Printers on Terminal Servers and/or Workstations

For every Active Directory object in steadyPRINT, you can decide whether the assigned printer should be specially connected to a terminal server and/or a workstation (see [Figure 16](#) – second and third check mark). This allows the creation of distinct and varying kinds of printer connections for the user's local as well as terminal server sessions.

Setting IP Filters

An IP filter allows the making available of printers for selected IP address areas. If the user's client does not have an IP address that falls within the range of the configured filter, neither can a connection be made to the respective printer nor will it be displayed in the [steadyPRINT Agent](#). Only an optionally definable exception (see [Figure 16](#) – fourth check mark) allows the suspension of the IP filter for individual login items (users, computers and groups).

You can configure IP filtering for print servers, folders and printers (accessible over the corresponding tab [settings](#) of the respective view). Established IP filters automatically pass on their settings to the objects lying below until these objects are either overwritten or rescinded.

Tip	<i>Location-based printer assignments</i>
	Display your business locations in steadyPRINT Center in the form of folders and define their respective IP address areas. On the basis of IP filters, you then let the printers be displayed and connected based upon their location.

Setting Default Printers

Setting the default printer is done over the properties of the respective login item and is possible for users, computers and groups. Additionally, **steadyPRINT** offers the possibility of defining a default printer for folders and print servers (accessible over the respective tab [Settings](#) of the respective view).

It is possible to define several default printers for every login item. If this is the case, a selection dialog box automatically appears for the user. The user can then select a particular default printer from among the defined printers.

Important	<i>Observe the settings for default printer performance</i>
	Observe the setting possibilities for default printer performance in order to attain the desired configuration. <i>You can find additional information about this in chapter Default Printer Performance.</i>

4.3 Dashboard and Monitoring

The Dashboard and Monitoring function makes it possible to capture - with a flat view - the state of a printing environment at one glance. If the [Display Dashboard and Monitoring](#) checkbox in the [Settings](#) section of [Dashboard and Monitoring](#) is enabled, then the Dashboard will be displayed when the root of the [Printer Administration](#) tree view is selected (see [Figure 17](#)).

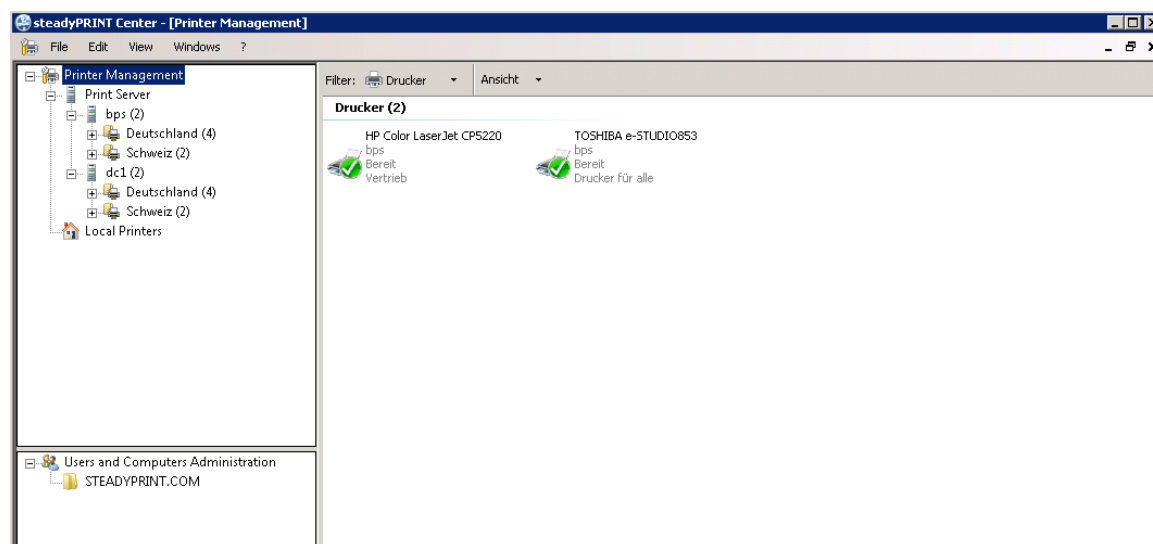


Figure 17: steadyPRINT Center - Dashboard

Using the Dashboard and Monitoring functionality requires the installation of the [steadyPRINT Server](#) component on print servers, which keep printers administered by [steadyPRINT](#) on stand-by. Additionally, these print servers must be added to the [Printer Administration](#) tree view, must not be disabled, and the printers to be monitored must already be imported into [steadyPRINT](#). The [steadyPRINT Server](#) component is responsible for the monitoring - or recording - as well as storage of printer statuses in the database.

The monitoring or recording of printer statuses can be disabled for the respective print server or printer. If the monitoring or recording of printer statuses is disabled for a print server, this will also lead to the monitoring deactivation for all the printers administered with [steadyPRINT](#) for this print server.

The Dashboard primarily displays errors and warnings. Additional, more detailed, information is shown over the [Display Details](#). The errors and warnings to be displayed can be selected using a filter at the upper edge of the Dashboard.

Note	Printer errors and warnings
	The availability and interpretation of printer errors and warning information depend upon the respective printer drivers. Therefore, steadyPRINT is not able to provide reliable information for some printers.

4.4 Taking Inventory of Local Printers

Taking inventory allows you to have a comprehensive view of the local printers connected to clients. These include printers which have been connected per USB or LPT interface. Currently excluded here are thin clients.

The [steadyPRINT Agent](#) is responsible for the inclusion of the printers. The inventory process takes place every time the Agent is started. After the gathering of information, local printers can be found in the [steadyPRINT Center](#) under the separate Local Printer tree node. To guarantee this overview of the respective printers, they are assigned to the client and the IP network. The network address is determined by the client's IP address and the subnet mask available. If the client has more than one

network adapter and IP address, the **steadyPRINT Agent** creates a separate entry for every network. Additional information like logged on users and other diverse details can be found under the detail view of the respective device (please see [Figure 18: steadyPRINT Center – Local Printers](#)).

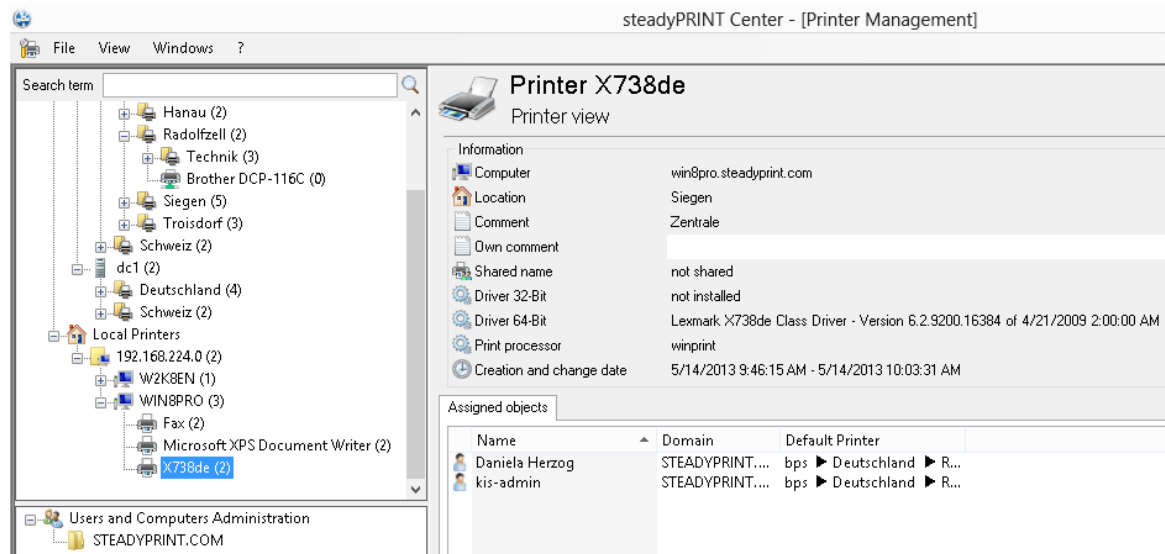


Figure 18: steadyPRINT Center – Local Printers

To enable the inventory process for local printers, the “[include local printers connected to the client and save in the database](#)” setting must be enabled under [Settings > Dashboard and Monitoring](#) in the **steadyPRINT Center**. You can also set the maximum data storage size and configure a display filter for the **steadyPRINT Center** [here](#). Add the printers to the filter that you wish to mask out.

Note *Clients without printer*

To ensure a better overview, clients without printers are not displayed by the steadyPRINT Center in the tree node.

4.5 Search and Find

There are many search buttons in the **steadyPRINT Center** with identical functions. You can simply search for terms or perform a wildcard, positive or negative search. With this, objects can be quickly and effectively selected from their Active Directory Structure and print environment. The search itself is performed within the respective object description and its visible properties (e.g. columns or tooltip-texts) in the **steadyPRINT Center**. Some examples for the view [User and Computer Management](#) are given below.

Search term	Description
PC	Selects all Active Directory Objects whose object name is "PC" or

	where the term "PC" appears in one of the visible properties (search for whole words only).
PC*	Selects all Active Directory Objects whose object name or one of the visible properties start with "PC".
*PC	Selects all Active Directory Objects whose object name or one of the visible properties end in "PC".
PC	Selects all Active Directory Objects whose object name or one of the visible properties contain the term "PC".
!PC	Selects all Active Directory Objects whose object name or one of the visible properties do <u>not</u> contain the term "PC" .
!PC*	Selects all Active Directory Objects whose object name or one of the visible properties do <u>not</u> start with „PC“.
!*PC	Selects all Active Directory Objects whose object name or one of the visible properties do <u>not</u> end in „PC“.

It should be noted that the column [Active Directory Path](#) is excluded from the search within the view [User and Computer Management](#) as this would lead to undesirable results e. g. with the terms „cn“, „ou“, „dc“, „=“. [Figure 19: steadyPRINT](#) – Search for AD-objects ending in "pc" visualizes again the search for Active Directory Objects whose names end in „pc“.

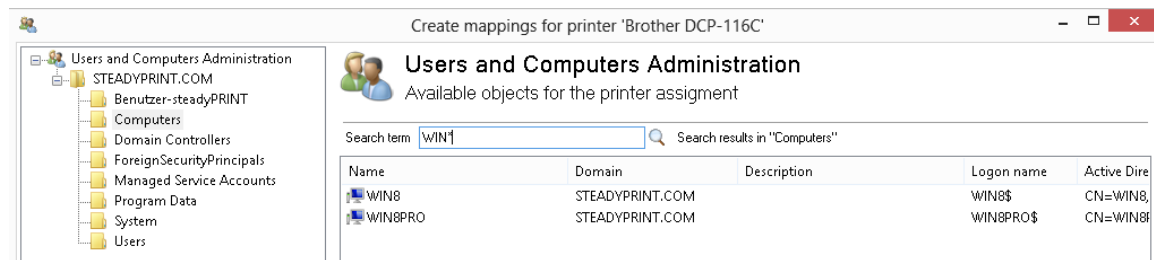
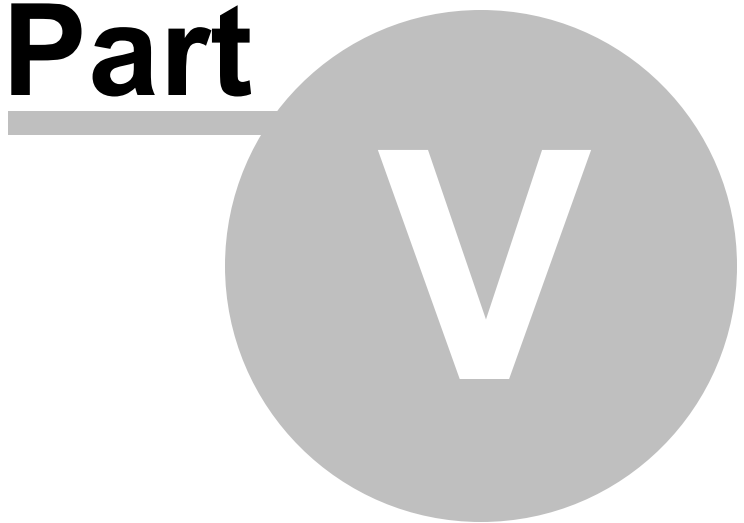


Figure 19: steadyPRINT – Search for AD-objects ending in "pc"

Part



5 steadyPRINT Reliability

steadyPRINT offers failure security for your printing environment. This means that should a print server failure occur a backup system can take over for the duration of the failure. The user-side printer connections run over the second system up to the time that the responsible administrator puts the primary print server (referred to as the Master Print Server below) back into operation.

5.1 The Backup Print Server

The backup print server constitutes an exact copy of the first print server for **steadyPRINT**. With the help of the **steadyPRINT Center**, you port the existing network printers from the master to the backup print server. It is possible to consign a backup print server for every master print server in the **steadyPRINT Center**.

Specifying a New Backup Print Server

In the settings section of the respective print server (**Settings** tab) you can specify the desired server. With the takeover of the backup print server, the registered server is saved in the database. The **steadyPRINT Center** checks if the **steadyPRINT** monitoring service is installed and active on this server. A comparison of the installed network printers also takes place. In the event that a network printer is missing on the backup server, a status window points out this circumstance. In this case, it is absolutely necessary to commence with a manual printer replication of the servers in the **steadyPRINT Center**. Otherwise, smooth running operations of the backup print server with all printer connections cannot be guaranteed.

Note	Activating RPC
	<p>For replicating the printers to the backup print server, it is necessary that the <i>Allow Print Spooler to accept client connections</i> policy permits access.</p> <p>The following entry in the Windows Registry should have the 1:</p> <p>GPO: Allow Print Spooler to accept client connections Key: HKLM\Software\Policies\Microsoft\Windows NT\Printers Value: RegisterSpoolerRemoteRpcEndPoint (REG_DWORD)</p> <p>Access should nevertheless be allowed by default, whereby a subsequent activation will <u>not</u> be necessary.</p>

Specifying Script Files

Under the print server settings (**Settings** tab), it is possible for you to deposit script files for the installed print servers in the **steadyPRINT Center**, which are configurable for a print server swap from master to backup print server or vice versa (see [Figure 20](#)).

When specifying a script file for a print server, the set script is saved in the **steadyPRINT Database**. As long as the script is not disabled in the **steadyPRINT Center**, it will be called up from the **steadyPRINT Database** and executed one time during the next print server change by the **steadyPRINT Service** on the respective system – this can also be a terminal server or workstation.

Should interaction between the script and the Windows user interface (**Windows GUI**) be necessary, an

adjustment to the [steadyPRINT Service](#) on the respective system will be needed to ensure the script is properly executed. To this end, please see the reference at the end of the text passage.

The screenshot shows two sections in the steadyPRINT Center interface. The first section is titled 'Script for switchover from Master to Backup-Print Server:' and includes a file icon, the text 'No script file selected.', a checkbox labeled 'Deactivate script.', a 'Browse' button, and a 'Delete' button. The second section is titled 'Script for switchover from Backup to Master-Print Server:' and includes a file icon, the text 'No script file selected.', a checkbox labeled 'Deactivate script.', a 'Browse' button, and a 'Delete' button.

Figure 20: steadyPRINT Center – Specifying Script Files

Note	<i>Adjusting the steadyPRINT Service for interaction with the Windows GUI</i>
	<p>For data exchange between service and desktop during script execution, it is necessary that the service be configured for access.</p> <p>The following entry under the service properties area of the steadyPRINT Service needs to be enabled:</p> <p>Datenaustausch zwischen Dienst und Desktop zulassen.</p> <p>Access is not allowed by default, thus making a subsequent activation necessary.</p>

Email Notification

This option allows you to add email addresses which will be used for notification purposes in the event of a print server failure. These notifications will only be sent during the swap from master to backup print server.

Print Server Replication

Change to [Replicating a Print Server](#) in the detail view using the [Printer Replication](#) tab (see [Figure 21: steadyPRINT Center – Print Server Replication](#)). There you will have an overview of all master and backup print server printers as well as the necessary replications.

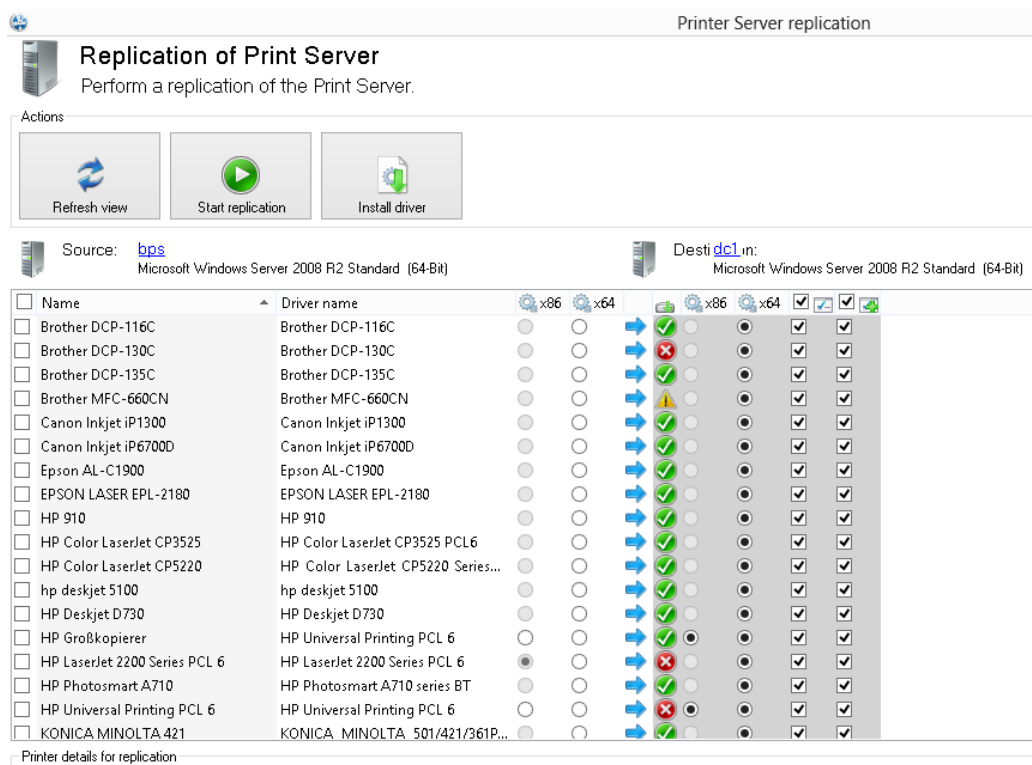


Figure 21: steadyPRINT Center – Printer Replication

The various network printers seen in the *steadyPRINT Center* view are marked with different colors. Red means that the printer on the target system is not available. Green, on the other hand, represents a printer that has already been installed on the target system.

Note

See details

Highlight an entry in the list to have more information displayed about a printer in the lower area. You can also hover the mouse pointer above the respective control element to get additional information.

To ensure reliability with *steadyPRINT*, print server replication is absolutely necessary and must be carried out successfully. A complete replication is distinguishable by the circumstance that all printers have been provided with a green symbol. Keep reading under [Print Server Replication and Migration](#) to get more detailed information about the respective control elements used in the Replication View.

5.2 Scenario: Print Server Failure

Should *steadyPRINT* determine the failure of the master print server, a specific series of actions will then be carried out in order to swap the printer connections to the backup print server.

Initial Situation

Your master print server (primary print server) has a *steadyPRINT* backup print server (secondary print

server) configured. The printer replication has already been carried out and the **steadyPRINT Server** service for monitoring the primary print server is running on the secondary print server. In addition, the printer connections were created for the user sessions which are currently running over the primary print server. **Figure 22** displays the scenario as described thus far.

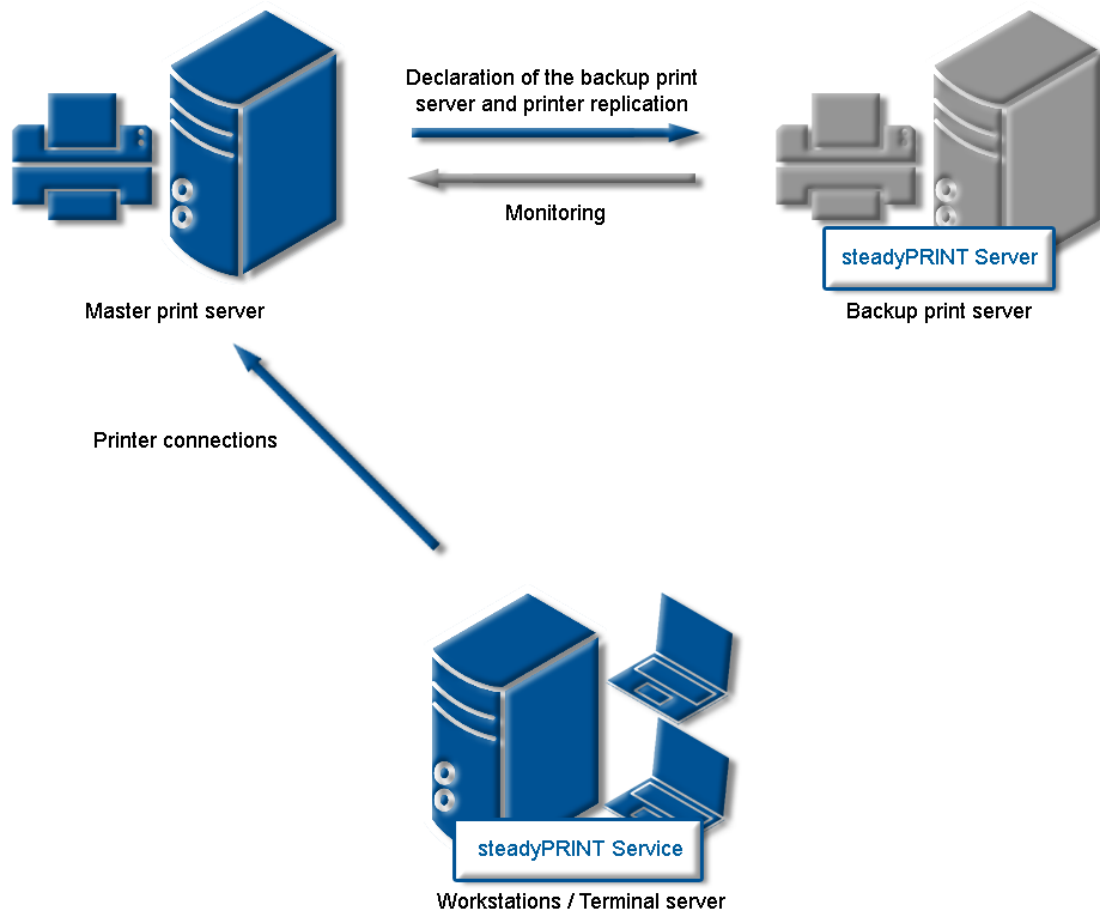


Figure 22: Initial Situation before Printer Failure

Order of Events

As soon as the backup print server's monitoring service determines a failure of the master print server, an immediate swap of the printer connections is triggered. The **steadyPRINT Server** service carries out the necessary updates in the data storage of the SQL server. Subsequently, the notification service **steadyPRINT Service** informs the terminal servers and workstations of the print server failure.

The **steadyPRINT Service** has its own communication channels within the running sessions. A call for a swap of the printer connections is sent over these. The current printer settings in the network remain unchanged in the process. **Figure 23** shows the course of the events leading to a swap of the printer connections as just described.

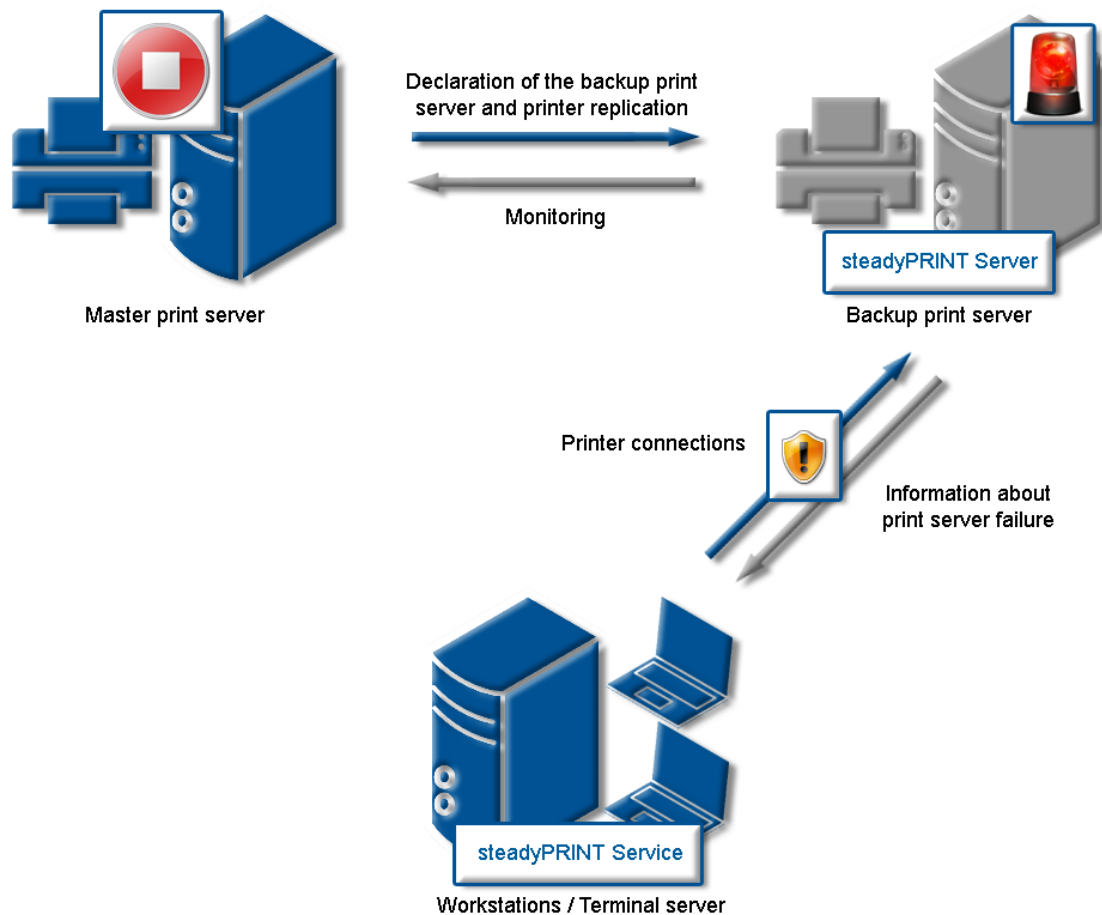


Figure 23: After the Failure of the Master Print Server

5.3 Activating the Master or Backup Print Server

To enable the master or backup print server you must change to the detailed view of the corresponding print server. Using either the [ENABLE Service Mode](#) button (enables the backup) or [DISABLE Service Mode](#) button (enables the master) enables the respective server ([Figure 24](#)).

You can use this function after a system failure or for server maintenance purposes. If the failure of your primary print server (master print server) has been redressed in your network and the primary print server is again operational, the swap of the printer connections can take place during operation.

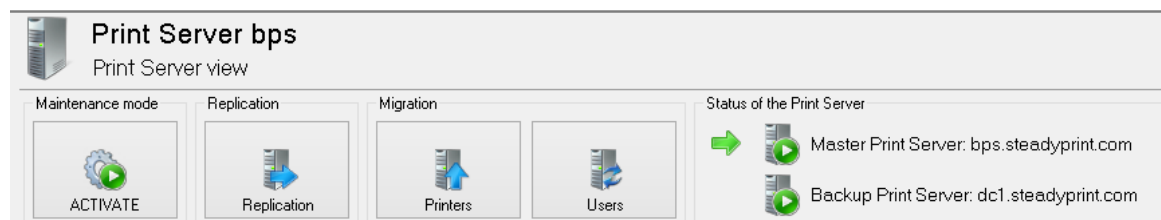


Figure 24: Activating the Master Print Server

5.4 Setting Printers into Service Mode

steadyPRINT has the capability of setting printers in service mode for carrying out maintenance work, for instance. To do this, proceed as follows:

You can move a particular printer to service mode by using either the mouse context menu or the “Activate” button in the printer’s detail view (the area on the right), see [Figure 25: steadyPRINT Center – Activating the Service Mode for Printers](#).

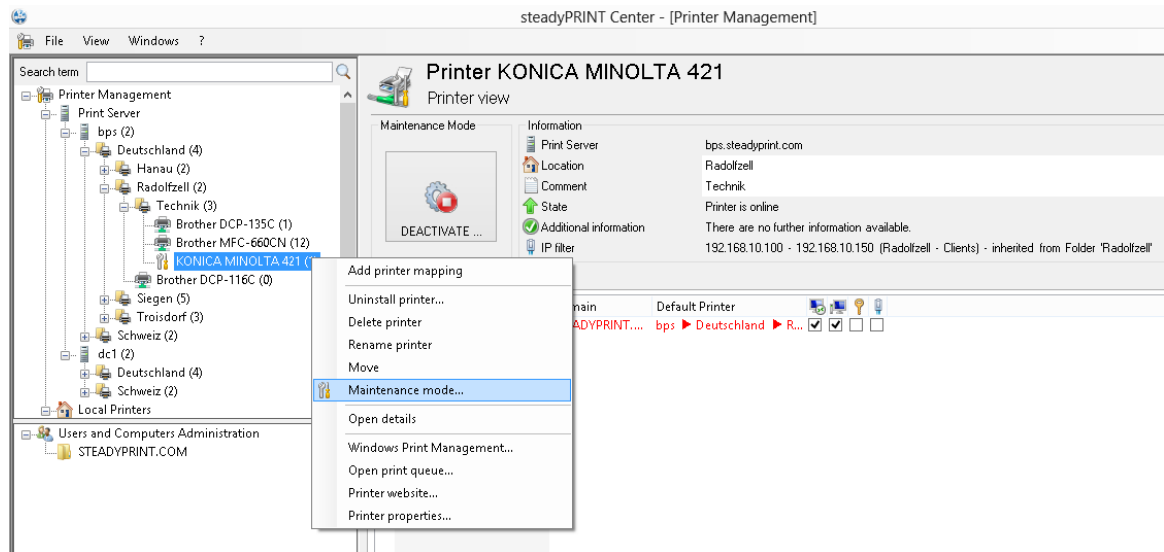


Figure 25a: steadyPRINT Center - enable maintenance mode for the printer

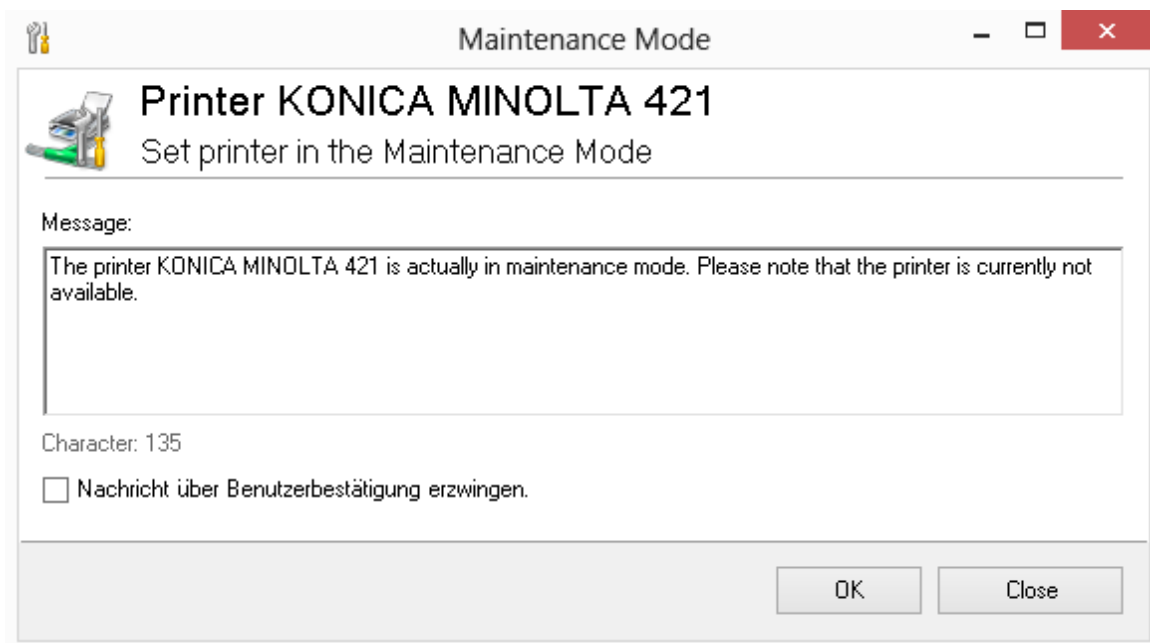


Figure 25b: steadyPRINT Center - enable maintenance mode for the printer

Proceed similarly to deactivate the service mode for a printer. A standard message has already been provided in the following “Service Mode” screen. It can be adapted by you at any time. Additionally, you also have the option of activating the user confirmation setting for this message.

Printer assignment is deleted for all users so that accidental printing is no longer possible. In addition, users are informed about the service mode through a pop-up window (see [figure 26](#)). This will also be displayed in the *steadyPRINT Center* and the *steadyPRINT Agent*, see related [figure 27](#).

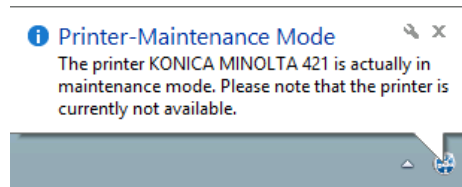


Figure 26: steadyPRINT Agent – Message for User

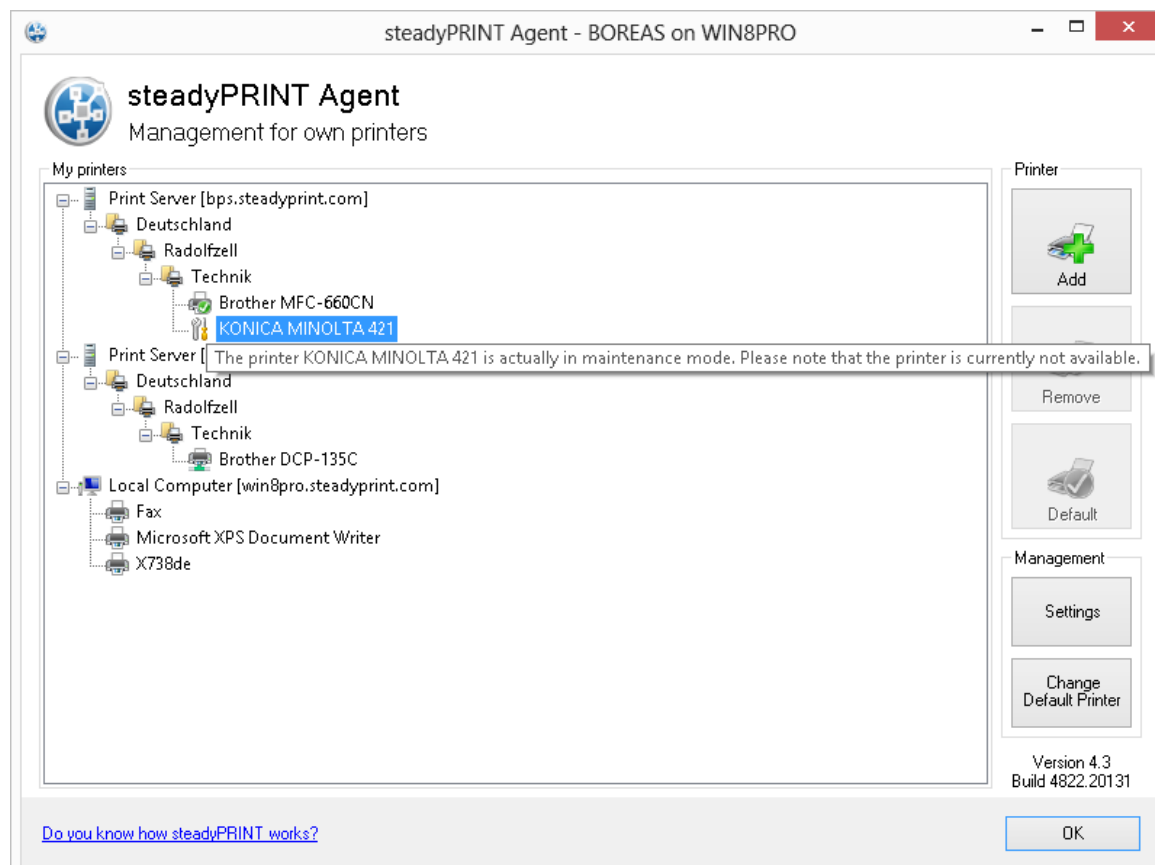


Figure 27: steadyPRINT Agent – Printer in Service Mode

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VI

6 Print Server Replication and Migration

steadyPRINT provides replication and migration functions to copy printers from a source to a target print server. The former allows simple copying of the printers to another print server with the same operating system. Migration, on the other hand, provides additional options. These make it possible to copy printers between different operating systems, for instance from Windows Server 2003 to Windows Server 2008 R2.

For both functions, **steadyPRINT** copies the given port, the print processors (1), the drivers (2) and the settings (3) for the selected printer and then installs the printer on the target system.

Print Server Replication and Migration can be accessed over the respective print server view in the **steadyPRINT Center**. A separate screen with which the various processes are executed opens for each function.

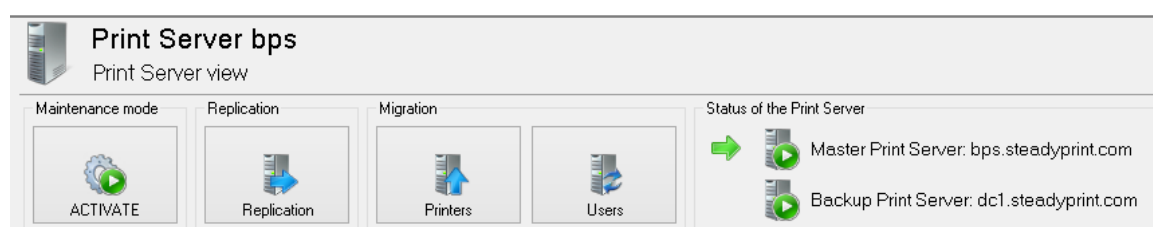


Figure 28: steadyPRINT Center – Selection Print Server Replication and Migration

Alongside print server migration, **steadyPRINT** also allows you to migrate users to the new print server. Read more under [User Migration](#).

Note *Declaring the backup print server*

A backup print server is necessary for replication and migration and must be declared in the steadyPRINT Center. Proceed as described in [The Backup Print Server](#).

6.1 View

Basically, the same components can be found in both the replication and migration screens. The following explanation will be in reference to the migration view as it also contains special supplementary operations in addition to the standard ones. References will be made at the appropriate junctions as to which functions will not be available in the replication screen.

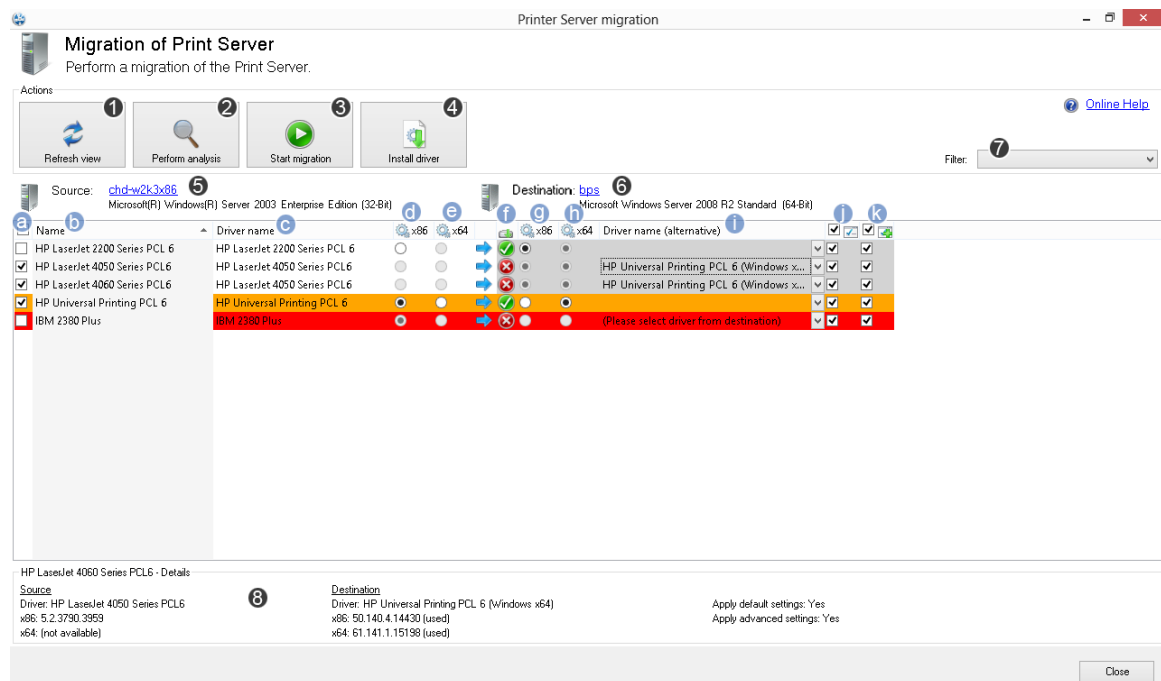


Figure 29: steadyPRINT Center – Migration View

First please find below a legend (see [table 2](#)) with an explanation of the individual control elements found in [Figure 29: steadyPRINT Center – Migration View](#).

Control element	Description
1 – Refresh View	Loads the necessary data from the print server and refreshes the view.
2 – Perform Analysis (migration only)	Analyzes the printers for migration and highlights them with various colors: <ul style="list-style-type: none"> - Orange: Different driver versions on target and source systems. - Red: No matching printer driver - with regard to name - found on both systems.
3 – Start Replication/ Migration	Starts the replication or migration process. This can last several minutes or even hours, depending on the number of printers, drivers, etc. to be copied.
4 – Install Drivers	Opens the dialog screen to install an additional printer driver (only possible locally).
5 – Source System	Displays the name and the version of the source system. Tip: Click on the name of a print server to open a remote desktop connection.
6 – Target System	Displays the name and the version of the target system.

	Tip: Click on the name of a print server to open a remote desktop connection. .
7 – Filters	<p>Filters for the printer displays:</p> <ul style="list-style-type: none"> - [Off]: Filter off - Printers installed: Filters for printers that have been installed on source and target systems. - Printers not installed: Filters for printers that are installed on the source system but not on the target system. - No suitable driver found (migration only): Filters for printers for which no drivers with the same name can be found on the target system. <p>Disparate driver versions (migration only): Filters for printers for which disparate driver versions are located on the source and target systems.</p>
8 – Details	Displays the details concerning a selected printer.
a – Printer Selection	Selects a printer for either replication or migration.
b – Name	Displays the name of the printer.
c – Driver Name	Displays the driver name of the printer.
d – x86 (Source)	Displays whether a 32-bit driver is installed on the source system.
e – x64 (Source)	Displays whether a 64-bit driver is installed on the source system.
f – Installed (target)	<p>Displays whether the printer and its dependencies are installed on the target system:</p> <ul style="list-style-type: none"> - green – printer installation complete - yellow – driver and/or port different - red – printer not installed
g – x86 (Target)	Displays whether a 32-bit driver is installed on the target system.
h – x64 (Target)	Displays whether a 64-bit driver is installed on the target system.
i – Alternative Drivers (migration only)	<p>The possibility to select an alternative driver that can be used during migration.</p> <p>This column is predefined after an analysis if the same printer already exists on the target system with another driver.</p> <p>Should there not be a 64-bit driver on the source or target systems, you will be requested to select an alternative driver for the migration so that the process can be completed successfully.</p> <p>Please note: All available drivers for the respective target system are listed for selection. They can be viewed under Printer Administration > Print Server > [COMPUTER] ></p>

	Drivers on the Windows Print Server.
j – Applying Default Settings	Indicates whether the printer's default settings can be applied on the target system.
k – Applying Advanced Settings	Indicates whether the printer's advanced settings can be applied on the target system.

Table 2: steadyPRINT Center - Replication/Migration Legend

Note	Application of Modified Printer Settings
	Modified printer settings are recognized but not visually displayed by steadyPRINT. Simply select the required printer and carry out replication or migration, in order to apply the modified settings from the source to the target system.

6.2 Carrying Out a Replication or Migration

To carry out a replication or a migration of a printer please proceed as described below. It is important here to define the replication/migration configuration that will eventually be used during the said process.

Execution Steps

0. Querying of the print servers and displaying of the printers available on the source print server (carried out automatically when opening the Replication and Migration View). You can also manually execute and repeat this process over Update View.
1. Carrying out of an analysis for the migration (available in the Migration View only).
2. Selection of the printers to replicate or migrate.
3. Selection of the printer drivers to use. Select whether you wish to use the drivers from the source or from the target for the process.
4. Select an alternative printer driver for the process, if applicable, (available in the Migration View only). This will stem from the target system and be used when installing the printer there. Please note: To display and use the desired drivers, they will need to be added to the target print server beforehand.
5. Select the takeover of the printer driver settings.
6. Start the replication or migration process.
7. Optional: Repeat the replication or migration, if necessary. Under certain circumstances, it can happen that the Windows printer spooler needs time to gather all the updated information for the new printers now available and thus does not display them as expected. Tip: Restart the print spooler on the target system or on the print server. Usually an update of the view will suffice.

Important	<i>Migrating from Windows Server 2003 to 2008</i>
	<p>For most migrations from Windows Server 2003 to 2008, it is necessary that the print processor file <code>localspl.dll</code> lies in the shared folder <code>\\[COMPUTER]\pmproc\$\w32x86\</code> on the migrating print server. If an error occurs, the error message will look somewhat like this, for example: "Internal error. The attempt to add print processor WinPrint failed. The file "\\chd-w2k3-x86\pmproc\$\w32x86\localspl.dll" could not be found."</p> <p>You can simply copy the file <code>localspl.dll</code> from <code>C:\WINDOWS\system32</code> to <code>C:\WINDOWS\system32\spool\prtprocs</code> to make it available in the shared folder.</p>

Important	<i>Using Incompatible Printer Drivers</i>
	<p>Please make sure that compatible drivers are available and used for migration. If an incompatible driver is used for the migration, the error message will look something like this, for example: "The attempt to add printer IBM 2380 Plus to computer chd-w2k3-x86 has failed - the printer IBM 2380 Plus could not be installed on print server BOREAS: The printer driver is unknown".</p>

Important	<i>Using Incompatible Print Processors</i>
	<p>Please make sure that compatible print processors are used for the migration. The attempt to migrate "old" and incompatible processors will lead to the following error message: „[...] The print processing is unknown [...]“. To solve the problem, please select the print processor winprint on the source system for the affected printers. After that, the migration should run through. After successful process completion, a subsequent adjustment of the print processor on the target system is possible.</p>

Note	<i>The Print Server's Operating System is not Shown in the Display</i>
	<p>For the correct display of the operating system in the display of the respective views it must be ensured that WMI queries are allowed on the affected systems.</p>

6.3 User Migration

User migration (see [Figure 28: steadyPRINT Center – Selection Print Server Replication and Migration](#)) is possible at any time provided a backup print server has been installed. During this process, the master print server becomes the backup server and vice versa. Consequently, the migration of all printer connections for users, groups and computers also takes place. Please note that a migration of the assignments will only function for those present in the [steadyPRINT Database](#). After the migration has been executed in the [steadyPRINT Center](#), it will be necessary to restart the clients.

It is possible to have the [steadyPRINT Agent](#) take over all existing printer connections automatically before the migration. The following explains the procedure for all available connections which are not present in the database:

1. First import to the **steadyPRINT Center** the desired print servers with all available printers to add these to the **steadyPRINT Database**. Please note that the **steadyPRINT Agent** only recognizes the connections to the respective printers that also exist in **steadyPRINT**.
2. Then enable the “recognize printer connections added manually in Windows and automatically map to a user in steadyPRINT” option under Settings > Printer Connections in the **steadyPRINT Center**.
3. Make sure to disable the “delete network printer connections not administered by steadyPRINT at Agent startup” option under Settings > Printer Connections in the **steadyPRINT Center**. Otherwise **steadyPRINT** will get rid of these, making a subsequent acquisition no longer possible.
4. Configured in this way, the **steadyPRINT Agent** acquires all printer connections at start up and adds these to the database.

*Please note: Automatically generated printer connections for the respective printers are always found directly below the print server in the **steadyPRINT Center**.*

Important	Printer Availability on Master and Backup Print Server
	It is necessary to ensure the availability of all printers on both print servers beforehand in order to guarantee a smooth transition.

Important	Printer Driver Integrity
	<p>Please note that after migration the printer drivers stem from another print server and may thus need to be reinstalled for printer connection generation.</p> <p>This circumstance can be corrected by activating the administrative printer driver installation function in the steadyPRINT Center.</p>

Note	User Migration and Reliability
	To ensure that reliability remains intact after user migration, the steadyPRINT Server service must be installed on the new backup print server (formerly master print server) before this system begins service. This is necessary for monitoring.

Note	Availability of the steadyPRINT Agent on Clients for User Migration
	The installation of the steadyPRINT Agent on the clients is absolutely necessary for the migration for users, groups and computers.

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VII

7 Settings

To adjust the **steadyPRINT** program settings, open the **Settings** window. You will find this in the **steadyPRINT Center** via **file > settings**. Here, the management of settings of the **steadyPRINT Center**, the **Behavior of Default Printers**, the **Dashboard and Monitoring** or even the **License** are available. Functions and settings that require a detailed explanation are described in the following sub-chapters.

7.1 Agent-Profiles

With the Agent-Profiles it is possible to define user-, group- and computer-specific settings for the behavior of the **steadyPRINT Agent**. Initially, there is a „Standard“ profile providing a basic configuration for the Agent which is adjustable, but cannot be deleted or disabled. To restrict the functions for specific users, you can, for example, define a new safety profile for one group.

All profiles presented in [Figure 30: steadyPRINT Center - definition of Agent-Profiles](#) are processed in the **steadyPRINT Agent** according to their prioritization, with **1** being of highest priority. The profile that matches the user, group or computer will be processed first.

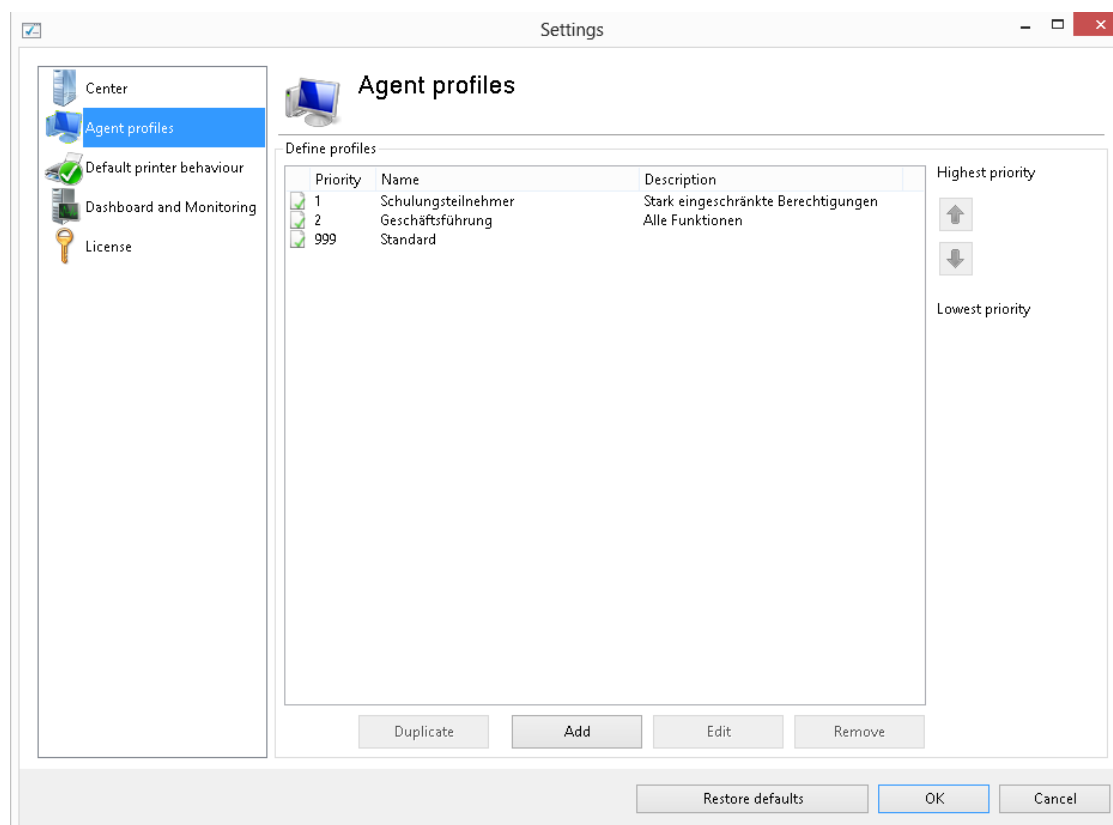


Figure 30: steadyPRINT Center - definition of Agent-Profiles

The profiles defined in the **steadyPRINT Center** are loaded once at the startup of the **steadyPRINT Agent**. New or deleted profiles as well as adjusted users, groups and computers are only processed when the Agent is restarted. When exactly which profile settings are processed is shown in the respective functional description in the profile.

7.2 Default Printer Performance

Under the [Default Printer Performance](#) category you can determine the configuration for the application order of the default printers. With the priority list you decide what type of default printer will be active in **steadyPRINT** and which one will be given priority in case of multiple connections. For instance, it is possible that for a given session one default printer has been determined for the user and another one has been determined for his computer. [Figure 31](#) shows an example in which default printers have been enabled for users, computers, groups, folders and print servers. Moreover, the default printer for a user always has priority as in this case the user enjoys the highest priority.

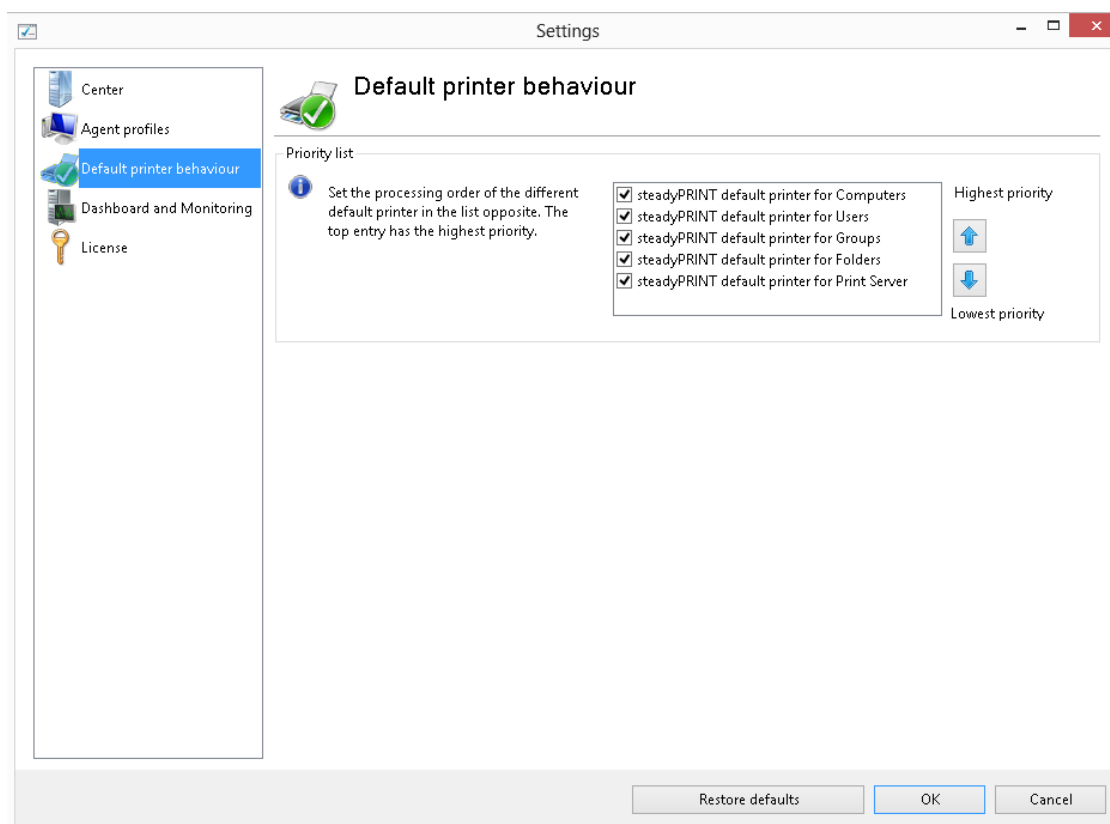


Figure 31: steadyPRINT Center – Priority List for Default Printers

7.3 Dashboard and Monitoring

Warning	<i>Beta Dashboard and Monitoring</i>
	The Dashboard and Monitoring functionality is currently in the beta phase. The stability of this functionality can be impaired or it can even be unavailable. If you do not feel confident about using Dashboards and Monitoring then you should not do so. Dashboard and Monitoring is disabled by default.

Using the [Threshold](#) option under the Dashboard and Monitoring category, you can set the time interval for which data is acquired for all printers on a particular print server administered by **steadyPRINT**. The more printers to be covered in a certain time interval, the higher the load on the print server;

correspondingly, the load will also be higher the shorter the time interval for a certain number of printers is. If the time interval is lengthened, the load decreases. A shorter time interval causes the load to increase. The time interval should be adjusted in such a way that the load on the print server is moderate.

Note	<i>The time interval</i>
	<p>It is recommended that the time interval not be shortened to a value below 10 seconds as this can lead to instability in the steadyPRINT server or print server.</p> <p>It is also recommended that the default time interval for monitoring not be decreased for more than 100 printers on a print server. If an overload occurs, printers or print servers for monitoring should be disabled or the time interval should be increased.</p>

Note	<i>Errors during data acquisition</i>
	<p>Some printer drivers cause problems or errors during data acquisition. This can lead to delays in some cases, thus causing the time interval setting to fail. After repeated errors have affected the steadyPRINT Server run time, these printers are excluded from the data acquisition process and are logged by the Windows Event Viewer.</p>

7.4 Performance-Profile

The performance profiles enable the configuration of time-related components of the **steadyPRINT Agent** and the **steadyPRINT Service**. Initially, there is a „default“-profile providing a basic configuration for the Agent and Service. It is adjustable, but it cannot be disabled or deleted. In order to restrict the respective configuration to special IP addresses, a new performance profile could be defined for a separate IP range.

All profiles from [Figure 32: steadyPRINT Center - definition of performance profiles](#) are processed in the **steadyPRINT Agent** and the **steadyPRINT Service** according to their prioritization with **1** being of highest priority. In doing so, the profile which, due to the IP address of the computer, matches the defined IP address range will be processed first.

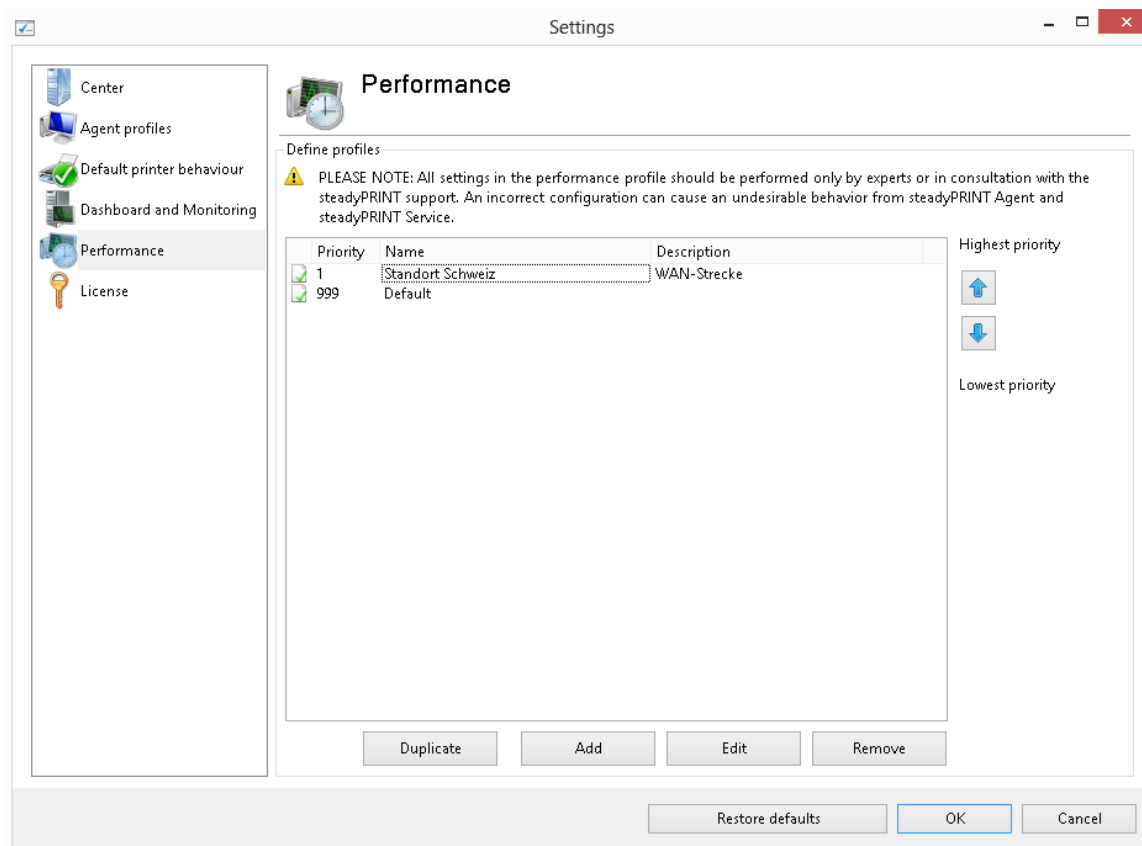


Figure 32: steadyPRINT Center - Definition of Performance-Profiles

All profiles defined in the *steadyPRINT Center* are loaded once at the start-up of the *steadyPRINT Agent* and the *steadyPRINT Service*. New or deleted profiles as well as adjusted IP address ranges are only processed when the program is restarted. When exactly which profile settings are processed is shown in the respective description in the profile.

Note

WAN-Connections and Performance-Profile

The performance profiles have especially been developed for the use of steadyPRINT in the WAN connection area. This feature allows you to determine how often the steadyPRINT Agent and the steadyPRINT Service look for new information in the steadyPRINT Database. The longer the interval for the respective time-related components lasts, the smaller is the load on the WAN connections. However, please note that dependent on the defined profile values, any modified information might be available on the Client computer with a delay.

Warning

Configuration Performance-Profile - Expert knowledge required

All settings in the performance profile should only be handled by experts or in consultation with the steadyPRINT Support. An incorrect configuration can generate an undesired behavior of the steadyPRINT Agent and the

steadyPRINT Service.

7.5 License

The [License](#) category allows you to initialize the required license. This is available in the form of an *XML file*. License data needed for an issuance include a valid first and last name, the complete company name as well as the name of the database including instance name, if applicable.

A valid license must be indicated in any case when starting the [steadyPRINT Center](#). This can be a free or an acquired license or a test license. If the license is invalid and [steadyPRINT](#) is not in demonstration mode, execution will not be possible.

Note	License volume
	<p>Please note that the number of licensed objects must not exceed the license volume. Otherwise the license will be identified as invalid.</p> <p>For questions concerning licensing, please contact the steadyPRINT-Support (see Chapter Support).</p>

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8 User-Side Administration Options

The **steadyPRINT** functions described thus far have been shown from a server-side, administrative perspective. We would now like to show you the following additional client-side printer administration functions that **steadyPRINT** is able to offer.

The **steadyPRINT Agent** offers special functions for printer administration that can be carried out by the user. **Figure 33** shows the main window intended for the user.

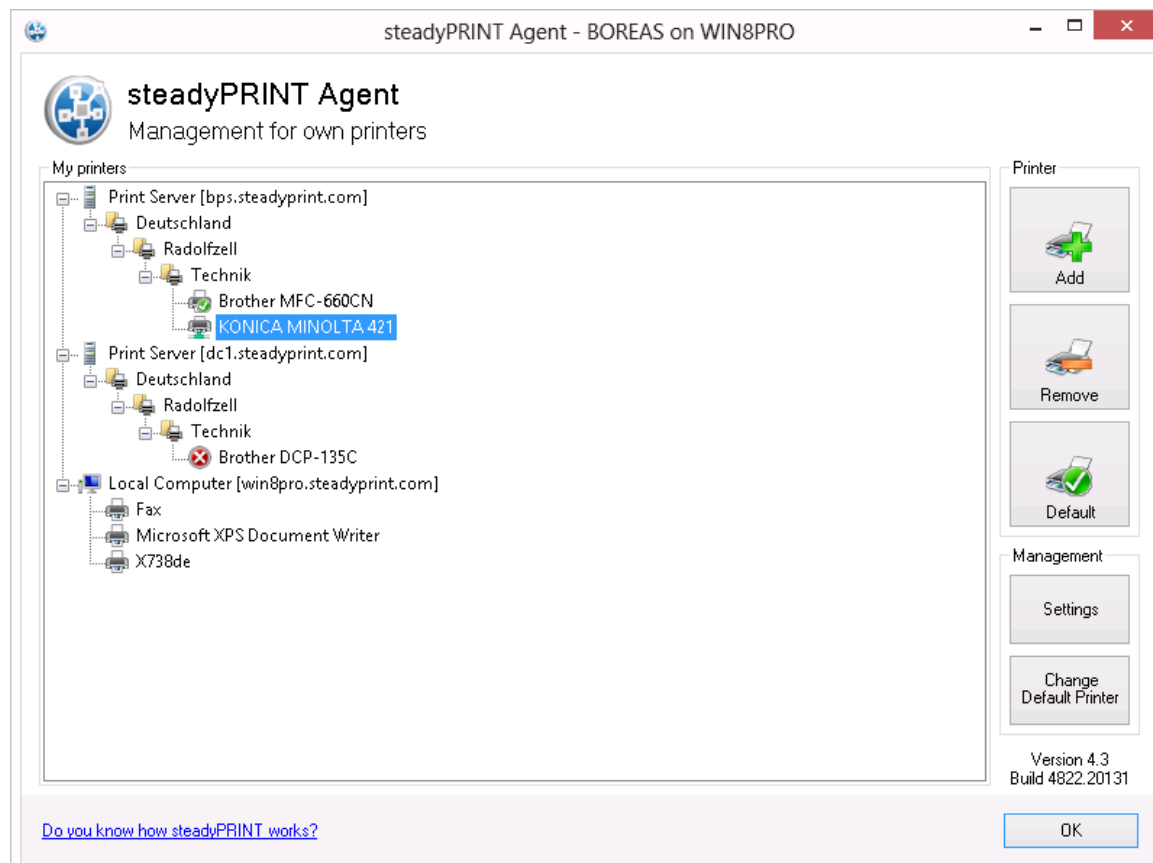


Figure 33: steadyPRINT Agent – Main Window

In the following table you will find functions available for client-side use by the user:

Function	Description
Add	The Add button allows the user to add network printers administered by steadyPRINT.
Delete	The Delete button allows the user to remove printers administered by steadyPRINT. This only applies to network printers which have been connected per <i>user-based</i> assignment. If printer in question has been connected per <i>Group or Computer Assignments</i> , the

	user cannot remove this network printer.
Set Default Printer	The Default button allows the user to set a printer as a default printer.
Settings	This allows the user to enable (disable) the notification window and the taskbar icons as well as set the language.
Change Default Printer	This makes it possible to change the default printer for the site where the user is located. The site mapping is located in the steadyPRINT's folder structure.
Open Windows Printer Directory	Using the local computer's context menu, the user can open the Windows Printer Directory. Alternatively, it is also possible to open it using the tray icon in the taskbar.
Print Jobs	The user can use the context menu of the respective printer to open the print queue.
Set as Default Printer	Using the context menu of the respective printer, the user can designate it as default printer.
Printer Properties	The user can use the context menu of the respective printer to open its properties.
Printer Description and Status Information	<p>When the user holds the mouse cursor over a particular printer, an additional description and the current status information of the device is displayed. In addition, the status is signaled with a symbol.</p> <p>If steadyPRINT ascertains an error for a particular device, the user can determine by his or herself - using the status information - if a paper jam has occurred, for instance, or if the toner needs to be replaced.</p>
Open steadyPRINT Agent	Using the tray icon in the task bar you can open the steadyPRINT Agent. Alternatively, you can also double-click on the Agent symbol.
Reconnecting Printers	Using the context menu from the steadyPRINT Agent tray icon, the user can manually reconnect printers.
Open User Manual	Opens the steadyPRINT Agent User Manual.
Support	Opens the support window with useful information for the administrator on the current configuration of the steadyPRINT Agent.
Terminate	You can stop the steadyPRINT Agent by using the tray icon in the task bar.

A short explanation of the functions and handling of the **steadyPRINT Agent** is available for users as a handout on the homepage www.steadyPRINT.com. You can download it for use as a PDF file.

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9 Citrix Client Printer (Citrix Universal Printer Driver) with steadyPRINT

Citrix offers the possibility and technology to transfer a client printer into the terminal server session without having to install additional manufacturer drivers on the [Citrix XenApp Server](#). In this way, this feature offers a compression of the print data stream. To ensure the functionality, Citrix-owned drivers and services that are locally installed on the Citrix XenApp Server are required and used. Citrix describes the entire subject in the following document: <http://support.citrix.com/servlet/KbServlet/download/32205-102-691166/Printing%2520Planning%2520Guide.pdf>

Procedure for using Citrix Client Printers with steadyPRINT

Installing the [steadyPRINT Agent](#) on the workstation and the Citrix XenApp Server is a prerequisite for the automatic set-up and transfer of client printers to the terminal server session by using the Citrix Universal Printer Driver. The printers can also be used on the client without Agent, the management of the client-printer connection, however, has to be done manually.

Steps:

1. Activate the option [Use Citrix Universal Printer Driver \(UPD\) on XenApp-Server](#) under [Agent-Profiles](#) in the [steadyPRINT Center](#) settings.
2. Add a printer assignment to the client or the Citrix XenApp Server via the [steadyPRINT Agent](#) or to a user, a group or a computer via the [steadyPRINT Center](#).
3. The [steadyPRINT Agent](#) on the client connects the required printer for the effected printer assignment.
4. Finally, the [steadyPRINT Agent](#) on the Citrix XenApp Server creates the client printer using the Citrix Universal Printer Driver.
- 5.

Note	Connection period of Citrix Client Printers
------	---

	In case the printer is not directly available on the client, the set-up of the client printer on the Citrix XenApp Server may take a moment and is thus available after a short waiting period.
--	---

Note	Disabling the option for administrative driver installation on a terminal server
------	--

	Make sure that the option Administrative Driver Installation on a Terminal Server is disabled. Otherwise the manufacturer driver is automatically installed from the print server to the Citrix XenApp Server by the steadyPRINT Agent.
--	---

Note	Use of preinstalled manufacturer drivers
------	--

	When installing the printer connection, the steadyPRINT Agent at first tries to use the manufacturer driver. Only if this is not available and the option Administrative Driver Installation on a Terminal Server is disabled, the steadyPRINT Agent used the Citrix Universal Printer driver for installing the session printer.
--	---

Note**Restoration of old session printers**

By default, a restoration of old session printers is done by means of a pre-defined Citrix guideline. Thus, the user might see the client printer multiple times resulting from different user sessions. To prevent this effect, you can disable the corresponding Citrix guideline and assign it to the respective users. You will find the guideline itself in the Citrix AppCenter under [guideline] > ICA > Print > Client Printer > Stored and Restored Client Printers (see [Figure 34](#)).

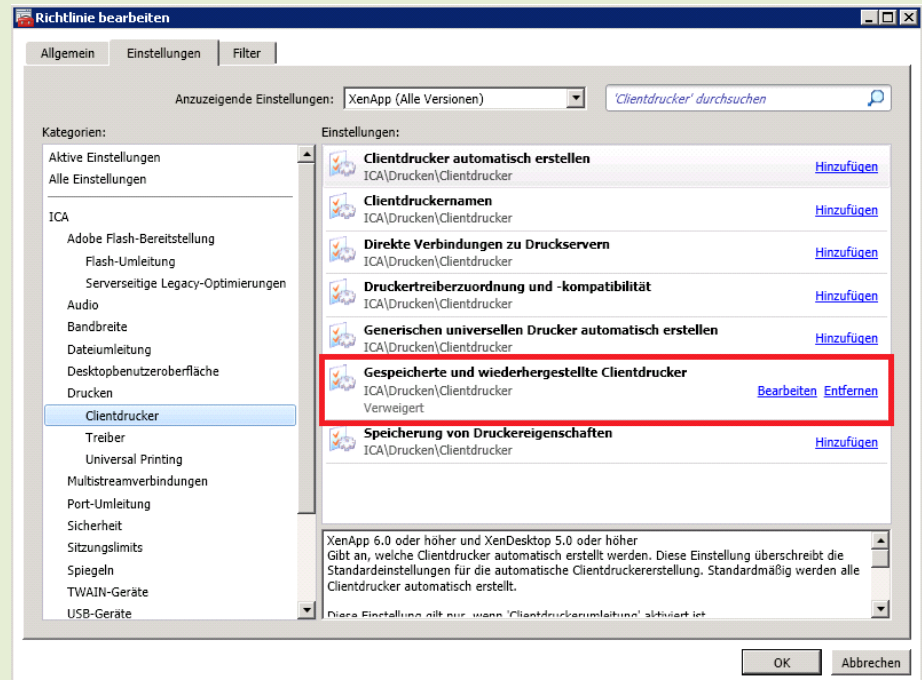
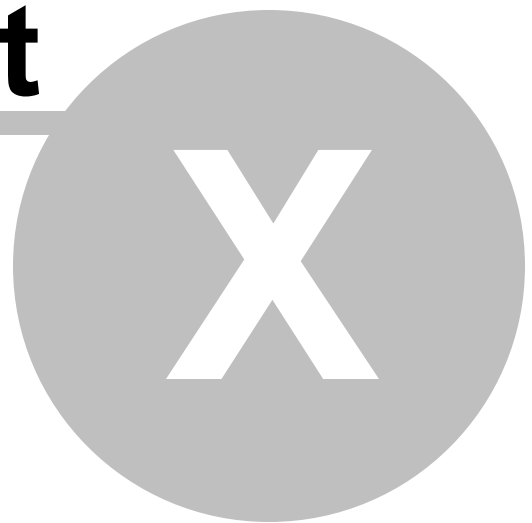


Figure 34: Citrix Guideline – Restore Client Printer

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10 Support

Our customer service will gladly assist you with technical problems occurring during the installation or use of **steadyPRINT**.

This naturally also includes any possible errors with **steadyPRINT** when operating under various IT-system environments.

You can always reach our [Support](#) during business hours between 9:00 and 18:00 at [0271/31370-30](tel:02713137030). Should you have concluded a special maintenance contract with us, please use the telephone number indicated in your contract.

Alternatively, you have the possibility of reaching us around the clock per email. Our service staff will contact you as soon as possible during our support hours. To reach us, please use the email address support@k-is.com.

Please also use our [Support Search](#) function for frequently asked questions and technical problem solutions on the **steadyPRINT** website at www.steadyPRINT.com/support.

For further information about the **steadyPRINT** product, visit our website at www.steadyPRINT.com.

FAQs and Technical Problem Solutions

A well-engineered architecture and easily applicable modules make it possible for you quickly and efficiently deploy **steadyPRINT** in your printer environment. Should you have problems with **steadyPRINT**, you will find technical help here. Alternatively, you can use the [Support Search](#) function on the **steadyPRINT** website at www.steadyPRINT.com/support.

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11 Contact

If you have questions, criticism or suggestions, you can reach us at:

The hotline for K-iS Systemhaus consortium is always available for you at +49 271 313 70 (in Germany) and +41 55 617 00 90 (in Switzerland). You can also reach us per email, of course: info@k-is.com.

We are certain that our software will support you with your tasks and would be pleased to receive any [Feedback](#) you wish to give us.

For detailed information about **steadyPRINT**, please visit our website at <http://www.steadyPRINT.com>.

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12 Annex

12.1 Upgrade to a Higher Version

The Upgrade Guide gives a short summary of information and procedures to consider when upgrading **steadyPRINT** to a newer version.

Important	<i>Important information when updating from 4.2.0 or lower to 4.3.0 and higher</i>
	<p>Before upgrading from steadyPRINT 4.2.0 (or lower) to version 4.3.0 and higher, please note the following:</p> <p>steadyPRINT Agent:</p> <ul style="list-style-type: none"> - All settings for the Agent in the steadyPRINT Center (File > Settings > Agent, Default printer behavior (user functions), printer connections) get lost and are reset to the predefined default values. - After the update, an adjustment is possible via File > Settings > Agent-Profile. - Excluded from this are configured printer assignments, default printers etc.! <p>steadyPRINT Center:</p> <ul style="list-style-type: none"> - All settings under File > Settings > Agent, Default printer behavior (user functions) and printer connections get lost. - All settings mentioned above are reset to predefined default values after the update. <p>Finally, an adjustment can be done via File > Settings > Agent-Profile .</p>
Important	<i>Important information when updating from 4.3.1 or lower to 4.3.2 and higher</i>
	<p>Before upgrading from steadyPRINT 4.3.1 (or lower) to version 4.3.2 and higher, please note the following:</p> <ul style="list-style-type: none"> - An internal change of the user management in the steadyPRINT Database might lead, in individual cases, to a loss of user assignments. The background is the use of double entries for user objects which are deleted during the update process and internally converted to the new structure. Important: In any case, one entry (the latest version) will be maintained including its assignments! The possible loss of assignments only occurs with multiple entries for users! - Old and new versions of the steadyPRINT Agent can run in parallel. However, an upgrade should be done as quickly as possible. <p>During the upgrade of steadyPRINT 4.3.1 (or lower) to version 4.3.2 and higher, please note the following:</p> <p>The update process dissolves users, computers and groups into SIDs (Security Identifier). Should a dissolution fail (e. g. an object was deleted in the Active Directory), the tool CreateSteadyDB under</p> <p>C:\Users\[USER]\AppData\Local\Temp\CreateSteadyDB - Update SID error.csv</p>

creates a CSV-file with an overview on all objects not to be dissolved. In this file, there are also instructions for a manual correction. Moreover, you will receive the information from the message under [Figure 35](#). If this message does not appear, the update process was successful and a manual intervention is not necessary!

If you have any questions, please contact the steadyPRINT Support.

Review of double entries by select instruction

In order to validate which users are affected by the problem mentioned above, the following SQL-instruction can be executed in advance. Double user entries will be listed.

```
select * from PrinterMap.dbo.Users T1, PrinterMap.dbo.Users T2
      where T1.LoginName = T2.LoginName and T1.LoginDom = T2.LoginDom
and T1.Num <> T2.Num
```

Step 1: Updating the Database

First of all make a backup of the steadyPRINT Database (PrinterMap)!

Before you begin with the new client roll-out and the Management Console installation, the **steadyPRINT Database** must be updated to the current version. Use the [CreateSteadyDB](#) program for this and follow the directions given in the [Installation](#) Chapter about updating the database.

Step 2: Installing the Management Console (steadyPRINT Center)

Deinstall the old version of the Management Console and then carry out a regular new installation as described in the [Installation](#) Chapter.

Step 3: Installing the Reliability Service (steadyPRINT Server)

Uninstall the old **steadyPRINT** backup components and then carry out a regular new installation as described in the [Installation](#) Chapter.

Step 4: Installing the Client (steadyPRINT Agent)

Uninstall the old version of the **steadyPRINT Agent** and then carry out a regular new installation as described in the [Installation](#) Chapter or carry out your normal client rollout procedure.

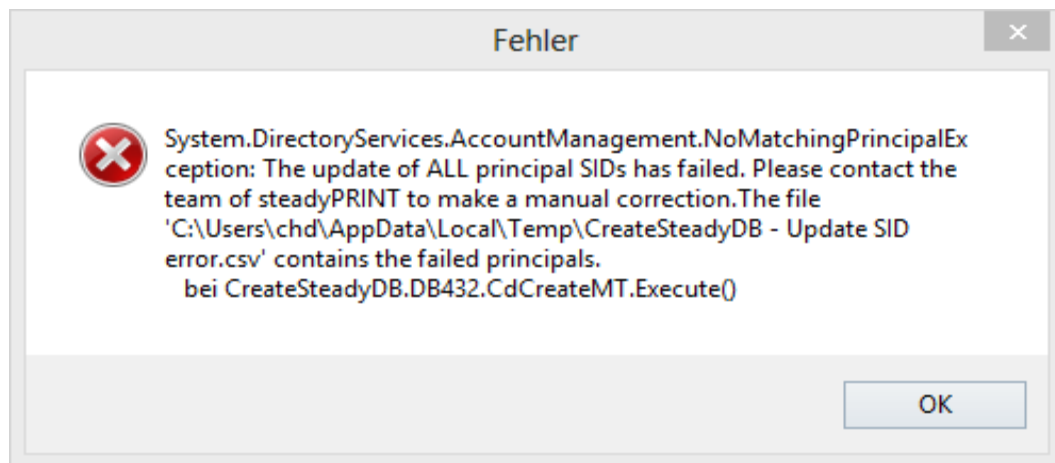


Figure 35 - Error message - change to SID